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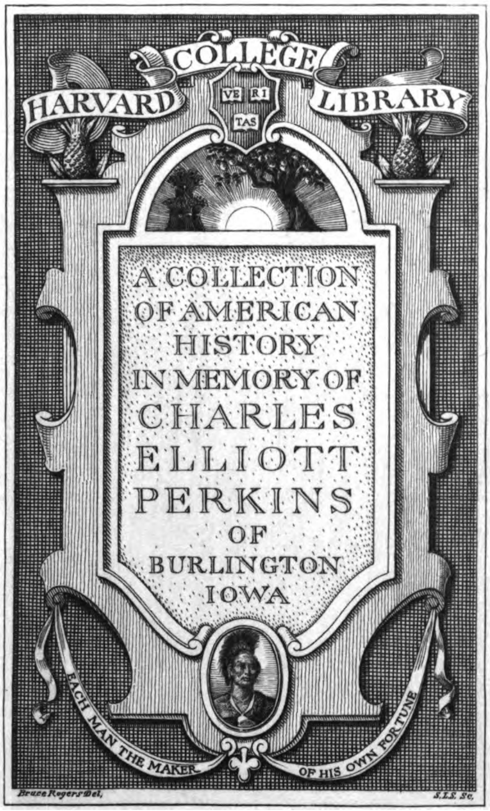

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THE SAINT LOUIS

MAGNET,

DESIGNED TO ILLUSTRATE THE

PHILOSOPHY OF HUMAN NATURE.

T. J. M'NAIR,

EDITOR AND PROPRIETOR,

MONTHLY—ONE DOLLAR PER ANNUM, IN ADVANCE.

Vol. 1.

T. W. USTICK, PRINTER, ST. LOUIS.

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THE

SAINT LOUIS MAGNET.

No. 1. SAINT LOUIS, MAY 1, 1845. Vol. I.

EDITOR'S ADDRESS.

After due contemplation, we have determined to present the public with a periodical addressed, in the main, to their reflective faculties. This is thought by many to be a hazardous undertaking—that the mass of the people are too indolent to think for themselves—that a work of this character, would necessarily involve deep thinking and patient research, far beyond the capacity of the general reader; and consequently fail for the want of a sufficient support.

These objections, we regret to acknowledge, carry with them too much weight. Observation and experience prove them to be too well founded. But we still believe, there are a sufficient number of reflecting minds in the Mississippi Valley, who desire solid mental food—such as will expand the mind and draw it out of that narrow, contracted orbit, in which it has been too long compelled to revolve. A little patient reflection will teach us that we are, as yet, in a state of infancy in the arts and sciences. We fall infinitely short of perfection, in any of the operations of life.

How few of the mechanic arts are brought to any tolerable degree of perfection? How contradictory are the views and opinions of man, in relation to most of the sciences? How infinitely short does the physician frequently come, of judging correctly of the pathology of disease?—And how frequently does disease baffle all his skill, and bid defiance to the combined powers of all his remedial agents? How imperfect is the science of law?—And how insufficient is it to meet every individual case, and deal out justice to all? The science of theology is constantly being modified.—How different the theology of to-day from that of the sixteenth century?

Such is the imperfection of man, and such his progressive nature, harmonizing with the constitution of the globe upon which he dwells. Hence, we feel the force of the following sentiment, "All things are passing away, and all things are becoming new." This is demonstrated by the constant changes and revolutions which are going on in the works of nature, and the every-day operations of man.

Notwithstanding all the vain pretensions of man to wisdom; so short is his life, and so imperfect his abilities, that but little can be accomplished by any one. And the slightest observation of all his works, teach us the imperfection of that which he does accomplish. How few of the sciences are mastered to any great extent, by our most profound philosophers? And how few the number of individuals, who have taken any considerable range in the vast and spacious departments of pantological science? Where is the man who would dare to call himself a pantologist, and not blush at the thought of his infinite pretensions? No one has ever examined and described, classified and arranged all the works of nature, and the laws by which they are governed. This is too vast and complicated for any one mind to grasp.

But of all the departments of science, there is probably none in which the general reader is so imperfectly informed, as that which takes immediate cognizance of himself—his own constitution, mental and physical, and the laws by which they are governed in health and disease. The violation of these simple laws of our nature, so admirably adapted to our rational desires, our happiness and perfection, bring upon us all the evils of which we complain, and frequently closes the scene with premature death. Scarcely an individual goes down to the grave with old age! All are hurried there by the wise and immutable sentence of the Divine Judge, who sits constantly in judgment upon their reckless disobedience! Viewing the actions of men, we would naturally conclude they owed obedience to no law. But when we view the sufferings to which they are liable, and the evils which daily befal them, recognizing no effect without a rational cause, and that punishment is the natural consequence of violated laws, we must infer laws to which they are subjected, and that those laws are their own judges, and their own executioners; or that they are in the hands of a higher Power, who avenges their transgressions.

To this department of pantological science, will the St. Louis Magnet be exclusively devoted. No pains will be spared in developing the most useful and practical principles of Human Physiology, embracing Cephology, Pathetology, Physiognomy, Psychology, Neurology, Electricity, Galvanism, Magnetism, Light, Caloric, Life, etc., etc.

These highly interesting subjects will be discussed and presented to the general reader, in as popular and comprehensible a manner as is possible; or as is consistent with the character and design of such investigations. Our great object will be to further these investigations, and awaken suitable reflections among the inquiring minds, so numerously dispersed throughout our widely extended valley; and a faithful presentation of the general laws which pertain to Human Life, and which are concerned in the production of those states of the mind, called Somnambulism, Somnipathy, Trance, Clairvoyance, and various other mental phenomena, which have hitherto remained enveloped in mystery.

We shall be much disappointed, however, should we not meet with numerous objections, to these philosophical speculations. It is too commonly supposed, that they subserve no useful purpose in the economy of life. But, it is even true, that there are many inquiries in every department of intellectual pursuits, which, to all appearance, lead to no practical result. This is, however, a defect inherent in the investigation of every thing new, and can be urged as no specific objection against the investigation of the philosophy of mind and life;—a correct knowledge of which, is so essential to our health, our happiness, and our future improvement.

In venturing upon the investigations of these sublime, but much persecuted principles, we would not wish to be understood as laying claims to any undue originality. We shall, as far as possible, avail ourselves of the advantage of the best productions upon these subjects, through whatever medium they may come. The object will be truth, and practical information, under whatever form it may be presented. Whatever may be the existing prejudices against a liberal investigation of those subjects—whatever coldness and apathy there may be in the minds of the people, in relation to their investigation—it is certainly true, that they have in all ages been held up to the mind's eye, in some light and under some form. In some, they have elicited the feelings of the marvelous, and given rise to the most absurd and superstitious beliefs. In others, that of power and wisdom, developing itself in the simplest manner, subservient to nature's laws.

Whatever then may be the belief, or disbelief of mankind in relation to these subjects; nature pursues her undeviating course, and happiness obtains in proportion as we place ourselves in harmony with her operations; and misery prevails just in proportion as we neglect this most obvious of all duties.

Happiness and misery, then, depend on our actions and not upon our belief, as has been so widely disseminated by certain teachers. It is very true, however, that we are apt to act in accordance with our belief. Hence, the necessity of a correct belief; that our actions may be good and not evil. Hence, too, the necessity of a thorough investigation of all subjects, and a careful comparison of facts, that we may arrive at correct conclusions.

[*To be Continued.*]

THE NAME OF OUR WORK.—We call this periodical "The Magnet," for a similar reason, that the Rev. Laroy Sunderland called his work The Magnet; and that is, we believe it possesses a little of the *rare* quality of its namesake, "The Native Magnet." There is undoubtedly an *electric* spirit pervading its pages, which must polarize its readers, rendering them *positive*, as to the necessity of sustaining it, as an instructive, moral, and highly interesting periodical; and *negative* as to any disposition to let it fall, for the want of support. Hence, we know of no name more appropriate. We do not design that it shall be merely *Anthropological* in its investigations, but it will include the interesting and important principles of Magnetism in general. Physiology, Phrenology, Physiognomy, &c., are but branches of the same great subject, to be discussed in our pages. *Magnetism* being the all-pervading *soul* of the whole. There is no life in any thing whatever, without Magnetism. Hence, reasonably enough, its name, "The Magnet."

COMMUNICATIONS FOR THE MAGNET.—Articles for this work are earnestly desired from those who have important facts to communicate. We hope we shall be favored with assistance of this kind from different quarters. All well authenticated facts connected with Mesmerism, as a Therapeutic agent, will be highly acceptable. We hope our scientific Physicians will lay aside their prejudices and investigate for truth, independent of popular opinion. For once, I should be pleased to see them in advance of popular opinion. This we know requires a degree of moral courage; and this degree we believe they possess, could it be excited into action. Would they conclude to take the Magnet, we think we may safely promise them a sufficient quantity of the Magnetic fluid, conveyed not immediately through the end of the fingers to the proper organs, but transmitted through the *electric* pages of the Magnet, to produce the action desired. Then shall we have reports of cases from numerous quarters, detailing facts, which will shed new light on the pathology of Living Magnetism, developing the laws by which it is governed.

OUR TERMS.—When the amount of interesting matter is duly considered, which each of our numbers will contain; occasionally embellished with engravings, it must be seen that our terms are *extremely* low; sufficiently so to place it within the reach of every inquiring mind.

TO THE FRIENDS OF SCIENCE.—The success of this periodical will necessarily depend on the influence of the few. All know how difficult it is to induce the many to take an interest in the subjects which will be discussed through the medium of these pages. All know, too, how deeply rooted and wide spread the prejudices we shall have to encounter. Hence, what is done to extend our circulation, must be done by the few, who have eyes to see, ears to hear, and minds to appreciate the importance of this work. May we not hope, then, that all those who may obtain a knowledge of this undertaking, will immediately lend us their influence in forwarding subscribers. Give us that patronage which the importance of our work demands, and we promise an agreeable disappointment, to all those who may interest themselves in our behalf.

Delay of the Magnet.—We have delayed the Magnet two months longer than we designed, in order to obtain a sufficient number of subscribers to warrant the continuation of the work for the year. This has required more time than we anticipated, in consequence of the want of prompt action on the part of the friends of this much abused science. But now our sky clears, and our prospects brighten; the impenetrable gloom with which our favorite themes have been enveloped is passing away, and the sun of science shines forth with meridian splendor. The encouragement we are now meeting, is far surpassing our most sanguine expectations. The great mass of the people are arousing to the importance of the subject, and in spite of the cry of humbuggery, and colusion, which has been raised by the interested and ignorant; they are determined to examine and test the efficacy of this most powerful remedial agent. This is all we ask, for conviction in Mesmerism will as certainly follow investigation, as that day succeeds the rising sun. Hence, our friends have nothing to fear, and we are proud to say, we think their most sanguine expectations shall be realized.

Correspondents.—We are happy to hear from the friends of science in different parts of the country; and it affords us equal pleasure to give such information as may be desired, when within our power. But it must occur to any one, on reflection, that it will scarcely comport with justice, for us to be taxed with postage on letters, from time to time, on business which is no possible profit to us, but for the sole benefit and gratification of others.

We have received numerous letters, asking for advice and information on the subject of Mesmerism, on which the postage was not even paid, to say nothing of the necessary time and expense of answering them. We shall be obliged to adopt it as a general rule hereafter, to take no letters from the office which are not post-paid. As to advice and information, it will be given in the columns of this work, as far as possible. But where advice is required in *especial cases*, compensation will be expected, in proportion to the time and attention required.

FOR THE ST. LOUIS MAGNET.

FUTURE PROSPECT OF MESMERISM.

Dr. McNair—Dear Sir: It is with pleasure that I learn your determination to issue a monthly periodical, devoted to the investigation of those interesting and useful, though much neglected, branches of knowledge relating more particularly to the different and varied phenomena of organization and vitality. It is but recently that the scientific world have directed their investigations in these channels, and already the imagination is dazzled, and the intellect delighted with the curious developments already elicited. Many heretofore inexplicable phenomena of vegetable and animal physiology have recently been brought to light by the application of the science of chemistry, to solve the problems of organic heat, the circulation of the blood, and the assimilation, and elimination of inorganic and elementary substances, into organized tissues, and new organic compounds. And I have no doubt that the researches of philosophers into the more intricate nature, properties, and qualities of the imponderable agents, Light, Caloric, Electricity, Magnetism, &c., will, at no distant day, lead to a much more rational explanation of the relations existing between mind and matter; or between the mental and physical phenomena, that are now wrapped in obscurity and mystery. All we want is thorough investigation and research by minds capable of grasping the subjects, and pursuing them, step by step, with steady, unwavering perseverance, and a determination to elicit truth at any hazard or sacrifice. This I consider to be the legitimate field for the advocates of Animal Magnetism, for it is my firm conviction that, when this much abused science is more thoroughly investigated by scientific men whose only desire is to arrive at truth, it will be found to be intimately connected with electricity in some of its varied modifications. We have had charlatans, neophites, and uneducated illiterate men dabbling with this subject so long, that they have secured blind credulity from the ignorant and lovers of the marvellous, and the contempt and ridicule of the educated and scientific,—and it requires a bold and fearless spirit now to stand forth an advocate for the cause of science in this particular branch. Such an one must and will be sustained, and will eventually triumph over credulity on the one hand, and contempt on the other—and place the science of Magnetism on a base as far above, as it is now below, in the scale of the physical and mental sciences. I trust to see the day when your "Magnet" shall be acknowledged a true one, and although it may oscillate and vibrate, it will be found, when it settles to rest, to point to the pole without variation, whose name is truth.

Yours, &c. W——.

FOR THE ST. LOUIS MAGNET.

EMPIRICISM.

It is a long established fact that empiricism and mal-practice have pervaded every science that has tended to great practical utility in alleviating the sufferings of frail humanity. In the various branches of Medical science, empirics, mal-practitioners and quacks, are frequently found tampering with the health, constitutions, and lives of those, who have unfortunately fallen within the range of their unskilful practice.

This being well authenticated by observation and experience in relation to the Medical science, it is no less surprising to find ignorant zeal and enthusiasm sporting with the first glimmerings of a newly discovered science; the importance of which, as a remedial agent in connection with profound medical knowledge, cannot in anywise be doubted. In none of the great avenues to scientific knowledge and usefulness, are there to be found more ignorant zeal and enthusiasm than among the practical votaries of the science of Animal Magnetism, which necessarily operates as a great barrier to its introduction as a potent agent, in the Therapeutical branch of Medical science.

Progressive improvement and the march of intellect being onward, the time is fast approaching when this all-absorbing subject will enlist into its ranks the highly intellectual and intelligent part of the professional world, eliciting philosophical investigation that will place it upon the topmost pinnacle of scientific discoveries. It will then be divested of all its present mysterious character, and accounted for on natural and rational principles. It will then be relieved of all the abuse and odium that ignorance and ill-directed experiments have hitherto hurled upon it and its advocates.

Skill and practical knowledge are qualifications requisite in every department of science; and in the practical use of Animal Magnetism are all the powers of a well-cultivated understanding brought into requisition. When Magnetism is used as a remedial agent, it is highly important that it should be directed with skill and judgment. Or if it be employed for a test of its great truth, it should also be conducted with a cool calculating judgment and great presence of mind, most studiously and cautiously avoiding a ludicrous exhibition of the low, vulgar and ridiculous manifestations that have been, and in many cases are, developed most particularly through the medium of the Phreno-Magnetic experiments, thereby casting a cloud that overshadows all the beauties of its astonishing effect, and confirming the prejudices which have been entertained of its skilful management in humbugging the people through collusion.

These injudicious exhibitions are of frequent occurence amongst lecturers, and must be acknowledged, by its warmest advocates, to be detrimental to its establishment in the great class of scientific discoveries; nevertheless, it is certain that many, and very many, are practised from motives purely noble — the evil only arising from an ill-directed manifestation of the experiments exhibited.

Whatever ludicrous ideas many persons may have associated with this subject, experience proves Animal Magnetism to be sublimely great, and ought, in no respect, and under no circumstances, to be trifled with by the enthusiastic empiric. Like every high gift confered upon us by the Creator, the Magnetic power ought to be exerted with discretion and judgment, and only for benevolent purposes, and every thing of a useless or jocose character connected with the practice, should be discountenanced in the strongest terms. R**** A**** J.

MAGNETISM.

ON ANIMAL MAGNETISM.

Among the most interesting results yielded by the labors of recent explorers in the domain of physical science, must be reckoned the views which they have opened to us of the nature and mutual relations of those subtle and pervading agencies—call them imponderable elements, cosmic forces, or what other name best expresses the little, at bottom, we know about them—which reveal themselves to our senses in the phenomena of heat, light, electricity, and magnetism. Intimate connections, pointing to a common origin, have been developed between these agencies, multiplying themselves at every progressive stage of the experiments to which they have been subjected. A mass of observations has exhibited them in such rigorous interdependence—the presence of any one of them involving the nearness of all the rest—as to render it very difficult to consider them otherwise than as phases of one and the same principle, modifications of some expansive ground-force and primal activity of matter, universal as gravitation, and probably antagonist thereto.

The researches of all the latest inquirers seem to have left no doubt as to the identity of all the species of electricity. The heating power of the magnetic fluid has now fully identified it in one of the most remarkable characteristics of electric action, with the voltaic and the common electricity; while the magnetic influence in its turn is found to belong to them all, and common electricity is at length discovered to deflect the needle. Animal and thermo-electricity, as well as magnetic agency, decomposes water. As far as their powers can be summoned into sufficient activity, they all appear to perform each others work; and it seems an exageration of timidity to hesitate in pronouncing them the various manifestations of some single and pervading principle. The intimate connection of this principle again, with heat and with light, which is perhaps little more than the peculiar effect of the vibrations of heat upon the optic nerve, plainly associate these with the former, and invite us to expect the near approach of some decisive discovery, which in combining them all, shall indeed lift the veil of Isis, and form before long, the great philosophical glory of the nineteenth century.

Should such a "decisive discovery" ever accomplish itself, there will probably be seen, taking its place in the circle of the powers here referred to, and asserting a cognate relation to them, the fifth power—that, namely, which announces its existence in the phenomena of Animal Magnetism. If such a power exists at all, it exists, assuredly, not in a state of isolation, as something *sui generis*, but is, with all other forces and activities that are found in the universe, a ray broken, by the great world prism of sensuous being, into refractions infinitely diverse in direction and color, the *maximum* of deflection being perhaps just at this point where Animal Magnetism shows itself.

Many organic forces have in their working much similarity with the powers of inorganic nature, yet are not identical with these. Now since, in nature generally, subsistence is ever evolved out of subsistence, it seems more in accordance with nature's economy to contemplate the organic forces not as an absolutely new order of powers, but as modifications of those already observed in the wider field of the inorganic, the modifying agency being that of the vital principle (and the will, where this power gives to the vital principle a particular character or direction,) which works upon and assimilatively transforms these powers, in the same way as it transmutes the inorganic material substances into organic. Those phenomena of electricity and light, which are subject to the individual vitality of inorganic bodies, and even to the will of certain animals, here form the transition and mediative link.

Certainly, if ever we possess a satisfactory theory of Animal Magnetism, it must be one which will base itself upon this principle—the essential unity of the organic and inorganic forces of nature, and show that the necromancy which our witch-finders of the nineteenth century espy in "a pass of the thumb or a movement of the fingers, and signs, and talismanic tokens," as Mr. M'Neile hath it, is the very same which their great prototype of the twelfth century detected in the crucible of the chemist and the decoctions of the apothecary.

"As we are almost daily receiving fresh knowledge on this subject, there need be no hurry," remarks Mr. Lang, "in building up a theory. The phenomena of Animal Magnetism are in themselves true, whatever theory may ultimately be adopted, and probably inquirers would for the present be most usefully employed in scrutinizing and recording facts, and leave the rest to time."

This is true: the time is not ripe for a theory of Animal Magnetism that will stand—a theory that will account for all phenomena observed containing at the same time nothing that observed phenomena will not bear out. Nevertheless, theorizing is a spontaneous operation of the mind. The first facts observed suggest, however little we may be conscious of it, certain involuntary speculative stirrings within us—an obscure instinctive seeking for some common ground to refer our observations to, without which there were no alternative but to dismiss them as mere phantasm and optical illusion. While we are observing facts, our theory is silently forming itself: for what else, indeed, is a theory but a beholding? My theory of the Magnetic phenomena is, in other words, my way of looking at, my view of the Magnetic phenomena—what *I see* in the Magnetic phenomena. Not to theorize is not to look, but passively to suffer the shapes of things to flit over the incognizant sense, passing away unapprehended, and without having added an impression to the store within. Let us, then, "scrutinize and record facts:" that is indispensable; but while the eye and the registering hand are busy, let not the faculties of thought and imagination be idle: let us theorize (provisionally) as we go on, were it but to enliven the, else, all too dull work of observing and recording. The very terminology of our record will depend in some measure on the theory—on the light in which, on the medium through which, we see.

ON MAGNETIZING.

The organs by which chiefly an extraorganic direction and activity are impressed, are the hand and the eye.

The most usual way of magnetizing, says Ennemoser, and, as many erroneously believe, the only way, is by the hand. The hands are the proper organs of the will, through which volition becomes act: as the body in general is the visibility of the soul, the manifest psychic subsistence, so the hands are, especially in their movements, the physiognomic indices or features of the will in its constitution and manner of working. But in like manner as the hands execute what the spirit within determines, so are they also the most natural conductors of the direction and fixation of physical energies.

The hand, says Passavant, is the organ in which the sense of feeling becomes sense of touch, and thus emerges into freedom, in the power of seeking and examining its object. Through the erect posture of man the hand is an emancipated organ, which, instead of serving to the support of the progressive motion of the body, becomes a comprehensive organ of the spirit. From the continual activity of the sense of touch, a greater consumption of nervous force goes on at the hand, particulary at the extremities of the fingers, and in consequence, probably, an increased efflux of the nervous æther: this process may be heightened in intensity through the influence of the will. In all ages a healing virtue has been attributed to the touch, to the imposition of the hand on suffering parts of the body; and from the earliest epochs of man's history has this organ been lifted up to bless and to curse. A custom in which all nations at all times have shown so singular an agreement, can have no mere arbitrary or conventional ground: it must find its import in the nature of the organ itself; and this is contained in the circumstance, that the hand is, in man, the freest member of the body, and that, as organ of the sense of touch, it is ordained to be the dispenser of the effluent nervous æther.

Passavant's directions for the magnetic manipulation are exceedingly simple. The hand is to rest either on the parts affected (where the disease under cure is local,) or on those places where the most important nervous structures are situated—namely, in particular, upon the head, and upon the region of the stomach, the former the centre of the cerebral, the latter of the ganglionic nervous system. Passes made with the points of the fingers or the palm of the hand, whether with or without contact, must (as a rule,) in order to work beneficially, be carried from above downwards, from the brain towards the extremities. According to Ennemoser, the greater the quietness and uniformity with which the process of manipulation is carried on—the less there is of bustle, gesticulation and ceremony—the more advantageous will it be to the patient, whose imagination should be as little as possible appealed to, his composure as little as possible disturbed, by what may strike him as oddity in the procedure he is subjected to. It were best if the manipulation wholly escaped the notice of the patient, so that the magnetic effects should steal upon him unawares, without his having been previously agitated by the expectation, perhaps the fear—of a mysterious power strange to his experience, and the anticipated approach of which must involve, one should think, feelings of a somewhat uneasy curiosity.

Next to the hand, the eye is the organ through which, principally, man exercises an immediate psychic influence both in men and beasts. From of old has the power of working magically, that is, of carrying the impulses of the will without the limits of the organism, been attributed to the eye. The fixed gaze of a malignant soul, which, as St. Thomas says, is often to be met with in old women (*ut in vetulis sæpe contingit,*) was supposed to work with deadly effect upon unresisting subjects, particularly upon children, and even to exert a baleful influence on the atmosphere. Virgil has indicated in the line—

> "Nescio quis teneros occulus mihi fascinat agnos,"

the belief of his time on this point; and Rosseau assures us that he killed four toads in Egypt by what Mr. Tappertit would call, "eyeing them over." However, on making the experiment on a toad at Lyons, the reptile being no benighted Egyptian toad, but an enlightened French one, and on a level with the intelligence of the age, not only did not die, but returned his look with such malign effect, that he swooned on the spot. The eye, as Passavant remarks, has this in common with the hand, that it not only receives but gives—not only is itself the subject of sensation, but causes sensation in others. While the senses of taste, smell, and hearing, are only receptive, the hand and the eye are at the same time acting, magically working organs.

The eye, he proceeds, is the telescope through which the soul discerns, the mirror in which she is discerned, and the telegraph whereby she announces the most hidden feelings. No passion so base, no dignity of soul so high, but it speaks out and reveals itself in this transparent organ.

But magnetic workings may take place without employment of either the eye or the hand. The approach of the physician is fraught with a powerful influence on the patient; and Friedrich Hufeland's conjecture seems not to be without foundation, that physicians often exercise a magnetic power without being themselves suspicious of it, and benefit their patients more thereby than with their prescriptions. Mr. Braid's method of "hypnotising," perhaps derives its efficacy in part from the magnetic influence which he unconsciously exerts: it may be doubted, at least, whether his patients would not take much longer to become "hypnotised," if they sat and squinted at their eyebrows in a room by themselves.

Continued and repeated magnetizing produces frequently, though not always, sleep. This is, according to Ennemoser, one of its most salutary properties.

Sleep, he remarks, is the first of medicines in all such diseases as consist in, or are accompanied by, an inordinate degree of excitement and over-activity of the system, and in which the inward harmony of the different organic workings is disturbed. When once we are fortunate nough, in nervous affections, in fevers, in pains of whatever kind, in mental diseases, in madness, &c., by any means to procure sleep, crisis of amendment begin to present themselves; but in no case so striking and so surely as in consequence of the sleep produced by magnetism.

The great advantage of this kind of artificial sleep, besides its extreme profoundness, involving insensibility as of death, is that it avoids the use of those narcotic substances which, whatever immediate relief their employment may bring, are, through their deleterious action on the brain, fatal to the subsequent healthy working of the functions both of mind and body. [*New York Magnet.*]

WHAT WILL BE THE BENEFITS OF MAGNETIC KNOWLEDGE?

The above is a question often asked by those who, forced by incontrovertible evidence into a belief of a magnetic agency in nature, are astonished that since it may be useful at all, man should have been six thousand years so ignorant of its workings. Many, who have distinguished themselves by a violent opposition to our views, disappointed on finding themselves overcome at last, turn surlily round and denounce both the principle and its advocates because once, perchance it was, and therefore may be again, devoted by some evil mind to an injurious purpose. But, to doubt its efficacy because it was not understood by our forefathers from the first, would be as wrong as to doubt the value of Christian truth because so many ages had elapsed before it was manifested in Jesus; and to prohibit its recognition lest it should be misapplied, would be not less absurd than to prohibit the general use of fire because it has been an occasional agent in the hands of the incendiary.

Our own belief is that, when rightly understood, its efficacy will be found fully equal to its power; and though the Rev. Hugh M'Neale and others have not hesitated to hint at its satanic origin, we must suppose the devil a much better being than he is generally described, before we can attribute to him all the wonderful yet beneficent results of its judicious application which have come under our knowledge. Such objections to Magnetism as that of Mr. M'Neale's remind us of a national council who, on meeting to consider the propriety of rendering navigable two of their rivers, which might easily have been accomplished, came to the following sapient resolution—"That had God ever intended those rivers to have been navigable, being himself more wise and powerful than man, he would have made them so naturally; therefore such an improvement would be sinful in his sight"—never thinking for a moment that the sciences and arts themselves are all only nature developed through human agency!

Like all other subtle and powerful elements, Magnetism will be good or bad according to the motive for its appliance; and we think it argues little faith in God, or in his image, which man is said to be, if we must shut our eyes lest the light should only show us evil. But such with some people is just the way. They talk about putting their trust in Providence; yet dare not trust its workings even in themselves. They pray to Heaven for its blessings on their fellow-creatures, and then are afraid such blessings should be enjoyed, because it may be they have not the exclusive administration thereof. They seem to have forgotten, or never known, that much which they themselves have abused till it became a curse might, if rightly understood, have been a blessing; whilst on the other hand, with the pure all things are pure, and with the righteous all things right.

Our object then must be not to discard, but to use an influence so potent properly; and since it has not been invented by ourselves, but placed by the great Creator in our hands, let us not return to him, unused or misused, so valuable a talent. Of its capabilities we probably know but little, compared with what we may, as we fit ourselves more for receiving such knowledge; but one thing is certain, that many of its curative, to say nothing of its educative qualities, are, in their development, almost as astounding as miracles. In Sheffield, it has been used with success by medical men, in various cases which have come to our knowledge. It has been our own privilege to be instrumental in the cure not only of monomania, but general derangement, by its agency on several occasions. In our last, we mentioned the restoration of hearing and speech under its influence, by Mr. Braid, and have since, in an operation of our own, observed a young man, totally deaf and dumb from his infancy, made so decidedly sensible of various sounds, as to give considerable hope of all but perfect restoration.

One case of the most horrid delirium was cured under our direction, two months back, at Nottingham, in presence of several police officers, and not less than ten or twelve other inhabitants, at a public house, into which we were called about the middle of the night. On arriving in an upstairs room, we found a poor man (who had previously smashed nearly all the furniture, glasses, and crockery around him) tearing his hair, and beating his head on a table, and raging all the while in the most miserable tones. The whole (as we believe to be the case with innumerable similar fits of suffering) was the result of a magnetic sleep, during which the patient had been cross-magnetised by several persons who had for some time been drinking. On the commencement of the next paroxysm of destruction, we directed one of the party who had previously handled him, and who appeared to have the greatest influence, to soothe his feelings by touching the organ of Benevolence. Sceptics may sneer at such a suggestion, but thus they would not have done had they witnessed the almost instantaneous and favorable result. The maniac immediately became as docile as a lamb, and in that state was thrown into a deep magnectic sleep, and carried to a sofa in a more convenient room. We then directed passes to be made without contact from the head to the feet, whenever the patient began to dream; and in turn the legs, the body, and the arms became much convulsed. At last, the whole influence, so mixed and foreign to the man's ordinary nature, seemed to have settled about the extremities, and at this juncture we directed the manipulator suddenly to nip the hands at the roots of his fingers, as hard as possible. The effect appeared electrical. The patient bounded up as if a demon was bursting from his body; his senses were recovered, and he could reason on his condition. Still he was far from well. His brain was whirling, and he felt somewhat sick; but on taking him entirely under our own control, and pouring a few gallons of water on the principal magnectic poles of his body and head, we brought him into a calm and painless, though, of course, exhausted state; and the following day he came, quite restored, to thank us, as he said, for saving his life.

In another case we prevented a patient from committing suicide. Suicidal monomania had been imbibed from a source which, in the present state of popular prejudice and scepticism, we scarcely deem it prudent to mention, though the time may come when, as we have done in other matters, we may feel that all restraint of Truth iscriminal, and so tell the world much that at present it little wots of. Suffice it, however, that we can give reference to evidence of the fact that we prevented suicide, and recalled the patient from a most violent fever, by magnetic influence (or what we call magnetic influence) alone, by passes and pressure over certain parts of the body and limbs, after applications of a more common and "approved" character had failed. The cure of the insane by magnetic means is already become a "profession" in the United States; and we are favored with intelligence, well corroborated, of the possibility of clairvoyant patients detecting the internal physical complaints in the persons they sympathise with. Nor is the latter at all new. Thirty years ago, a medical gentleman, at Lutterworth, in Leicestershire, discovered the diseases of his patients through the medium of his daughter, whom he was in the habit of rendering clairvoyant, but was compelled at last by prejudice to desist. But the truth is, the time has now arrived, not only for staggering scepticism but disarming superstition—two of the greatest foes to human happiness; and if Magnetism could accomplish no more than this, it might be deemed one of Heaven's most welcome dispensations to man. Far greater than these, however, are its capabilities; and we are not amongst those who would hide them from the gaze of an inquiring world.

[*London Phreno-Magnet.*]

DISEASES REMOVED BY MAGNETISM.

There is no country, perhaps, in which a knowledge of Human Magnetism has been disseminated, where its therapeutic benefits have been so little sought after and so improperly appreciated as in our own. This deleterious effect, has undoubtedly been caused by the ludicrous manner in which this science has been exhibited through every part of the United States; by empirics, the most superficial, ever ready to catch hold of the first intimations of new discoveries in the arts and sciences, however efficient and valuable they may prove, or however false and pernicious the principles or machine may develope itself when thoroughly tested. The sole object of this most detestable part of community, is selfish in the extreme. So they obtain the *dimes*, they have little or no regard for their own feelings, or the ruinous havoc they may make of the most noble science. This science, probably calculated to shed more light upon the animal economy, than any other which is now agitating the minds of the philosophic world, has been made a complete babboon show of; disgusting the more intelligent and reflecting part of community, and merely amusing the balance. Hence, where people have depended upon these ludicrous exhibitions of the magnetic sleep, and know no more of its uses than what they see in experiments made for mercenary purposes, or to merely gratify idle curiosity, we are not to expect them to place a very high estimate upon any practical benefits which may be developed from a judicious use of this Human Science.

The most that we are surprised at, is, that the people have suffered themselves to be thus humbugged so long by the mere abuse of a science,—the chaff for the grain. But a new era in this science has arrived, the people have arisen in mass and placed their veto upon such proceedings with the broad seal of a few years reflection; and now this useful science is settling down in the hands of a more judicious class of community, to be wielded with power and efficacy in the removal of diseases, in which its healing properties will be fully realised by all, and disputed by none. We know, that already, a large proportion of the most intelligent of the learned professions in this country, are convinced of the truth of Mesmerism, and many of them have fully tested the valuable benefits accruing from its proper application in the removal of diseases, and the relief of human suffering. We now rejoice to see many physicians, whose candor, benevolence, intelligence, and health, qualify them for removing disease, taking hold of this science and giving it such direction, as must at once elevate it above the abuses to which it has been too long subjected, and use it as the Author of Nature's other gifts should be used, for the relief of human woes.

For this end we make use of it, and the principal object of this periodical will be, to arouse other and more powerful minds to use it for the same noble purpose; and to accomplish this more effectually, we will report such cases as will be both interesting and instructive.

We have facts in abundance well authenticated, sufficiently sustaining the therapeutic efficiency of Human Magnetism. We have no room to quote from the numerous works translated from the French, German and Russian languages, with the exception of some very interesting cases. We shall, therefore, confine ourselves principally to the statements of such cases as may fall within our own observation, and those which may be reported to us for publication. The names of the persons referred to, need not always be given, but they may be known on application to the editor. In stating these cures, we shall avoid all technicalities as far as possible, merely giving those particulars which may afford general readers a definite idea of the nature of the disease, and the manner in which the relief, or cure, was effected.

I.—TOOTHACHE.

Miss H———, being present at a lecture which I delivered on Mesmerism, some time in Februrary last, in the city, was suffering severely with the tooth-ache, which had produced considerable inflammation and swelling. After the lecture was closed, I was requested to demonstrate the efficacy of mesmerism, by removing the lady's toothache, which was thoroughly effected in at least ten minutes;—the swelling having almost disappeared, as well as the pain, in the same short space of time. We heard from the lady sometime afterwards, and was informed that she had not suffered with the toothache since. In this, we seldom ever fail, unless the tooth be ulcerated. We have tested the power of Mesmerism in this particular, in innumerable instances. It has finally become of every day occurrence; and there are but few, who have not become acquainted with the manner of its application. But for the benefit of those who have not, we may state that the operation consists in simply placing the end of one finger on the tooth which aches, and another finger on the opposite side of the face, and on a parallel tooth. The fingers may be continued thus, with a gentle pressure, for two or three minutes, which frequently causes the tooth to ache worse for a short time. If the tooth which aches be an upper one, the manipulations, or passes, will be made downwards, immediately over the diseased tooth; but if an under one, the manipulations will be made upwards. The pressure and manipulations may be continued alternately until the tooth ceases to ache. This operation will mostly prove successful in from three to ten minutes. Thus simply may almost any one be relieved in a few minutes of the most excruciating pain; and that, too, without the inconvenience of losing the tooth. I have frequently removed the severest toothache, which I have never known to return. And had it not been for this simple and effectual remedy, the sufferers would no doubt have been compelled to have them extracted. This, however, is not true in every case. I have sometimes known the pain to return, and have removed it two or three times before the sufferer would be entirely relieved.

II.—HEADACHE.

This is a very common complaint, especially among that class who lead sedentary lives, and spend the greater proportion of their time shut up in close rooms. This disease, however, frequently arises from a deranged state of the stomach, in which case a light emetic is sometimes required, followed by a mild cathartic. But in far the greater proportion of these cases, and more especially those which arise from nervous irritability, Mesmerism, or Pathetism will produce the desired effect in a few minutes. To successfully remove headache by Mesmerism, the hands of a competent person may be placed upon the head with a gentle pressure, and remain until a communication, or an equilibrium of temperature is produced between the hands of the Mesmeriser and the head of the patient. If the disease then originates from the stomach, the manipulations may be made down as low as the epigastrum, or pit of the stomach, where the fingers may rest for a short time, when the passes may be continued from the head well down to the extremities.

When the disease originates from nervous irritability, the manipulations, after a communication is produced, may be made from the centre of the forehead, back over the head. When pain shoots back from the anterior to the posterior portions of the head, one hand may be placed on the forehead and the other on the back part of the head; or if the pain should pass from one temple to the other, the hands may be placed on each side of the head, immediately over the region of the pain. The manipulations are always made immediately over the parts affected; unless they are made to produce a general influence over the whole system, which is sometimes necessary in the first instance.

III.—DETERMINATION OF BLOOD TO THE BRAIN.

Mr. D———, being very subject to this formidable disease, was violently attacked early one evening, in the month of January last, and sent for me. Upon repairing to his house, I found him in an insensible and helpless condition. His breathing was deep and difficult; and his pulse irregular. I applied Mesmerism until he became sensible, which consumed about thirty minutes of time;—the manipulations being made from the head to the lower extremities. By this time a tub of warm water was in readiness, which I had ordered immediately upon discovering the patient's condition. This was made moderately caustic with Sal-Soda, in which the patient's feet were bathed, drawing at the same time from his feet about one pint of blood. This being completed, I gave the patient an active cathartic,—mesmerised him some twenty minutes longer, in which time he became perfectly easy, went to sleep and rested well the remainder of the night. The next day, I found the patient quite well, and before night was attending to his business as usual. I will here give the treatment, which this gentleman stated he received from the regular practitioners, when laboring under the influence of this disease. First, lanced in both arms, and if the blood would not flow, which was frequently the case; then the skin was rubbed off from the back of the neck, and down the back, after which was applied to the excoriated parts strong spirts of hartshorn, giving æther and spirits of nitre internally. After the patient came to his senses, and natural feeling being restored, he suffered the most excruciating pain from this rugged treatment. But still, to complete this course of treatment, a dose of calomel was ordered, and as high as seven blisters drawn at one time; from the effects of which, the patient seldom recovered in less time than from six to twenty days! "But now," using the patient's own language, "I can be relieved from one of those spells by mesmerism, in a few hours." These facts, the gentleman handed me in writing.

IV.—CHRONIC RHEUMATISM.

Mr. O——, of this city, has been afflicted with this disease for some ten years, frequently preventing him for months, at a time, from attending to his ordinary business. On or about the first of October last, he was induced to apply to me for medical treatment. I applied mesmerism, which soon aroused the pain, until it became so severe that the patient frequently requested me to stop the operation for that time, for he could not endure the severity of the pain. The pain continued to change from the obtuse to the acute, until the patient became quite discouraged and felt much disposed to give up the treatment, in hopeless despair. But he fortunately possessed a sufficient degree of firmness and decision of character, to adhere to the resolution which he had formed when he commenced this marvellous mode of treatment, which was, "to give it a fair trial." Having exhausted the skill and ingenuity of the regular practice, as well as the power of the drugs which it wields—Mesmerism being the *dernier resort*, which, fortunately for its good name, in this gentleman's opinion at least, triumphed over the disease, in the course of some three months, and the patient found himself free from pain, and erect without a cane, walking, running or leaping as occasion required, and as he had formerly done before this formidable enemy of mankind carried its ravages into the field of his own vital action. The manner in which I used mesmerism in this case, was, first to produce a general influence over the whole system, by the most common mode of magnetizing, which is now mostly understood by all, and is sufficiently explained in another article in this work, under the head "On Magnetizing." A general influence being produced, I then placed one hand upon the highest part affected, which was the lumbar vertebræ, and the other upon the fleshy part of the leg, just below the knee, to which the pain reached. After holding the hands in this position for some time, manipulations were made from above the lumbar vertebræ down to the foot, carrying the hand back in a semi-circle. These operations were continued, alternately, for about twenty-five or thirty minutes each day, until the cure was effected. No other medicines were used in this case. The explanation of this treatment is deemed sufficiently full; as a little reflection will supply any deficiency in the detail which we may think necessary for brevity. Judgment must be exercised in the practice of mesmerism, as well as that of medicine. It is even true that mesmerism no more affects two patients alike, than calomel, opium, or any other drug wielded by medical practitioners.

Some weeks after Mr. O—— was considered thoroughly cured, he wrenched his back severely by lifting, when the disease returned, apparently with as much violence as ever. He again applied for mesmeric treatment, and was the second time perfectly cured, and has remained so up to the present time, which is more than two months.

MAGNETISM AS A MEDICAL AGENT.

It is our design, for the express advantage of our patrons and readers in general, to give especial attention to this subject in the succeeding numbers of our work. We have many facts connected with numerous cases, which will excite deep interest. The mitigation of human suffering should be the object of all who investigate this branch of science, and not merely the gratification of idle curiosity.

MESMERISM.

[The following authentic and minute description of an operation in Mesmerism appears in the last number of the Southern Medical and Surgical Journal, written by Dr. L. A. Ducas, Professor of Physiology in the Medical College of Georgia, who performed the operation in the presence of several eminent physicians.]

On the 3d of January, 1845, Mrs. Clark, (wife of Mr. Jesse Clark, of Columbia County, Georgia,) came to the city, for the purpose of getting me to remove a schirrous tumor of her right mammæ, which had been gradually increasing for the last three years, and which had now attained the size of a turkey's egg. The tumor had never caused any pain of consequence, was not adherent to the skin; nor did it implicate any of the axilary glands. Mrs. Clark is about forty-seven years of age, has never borne a child, and her health, by no means robust, was pretty good, and had not been impaired by the evolution of the tumor. The operation having been determined upon for the following day, Mrs. Clark remarked to me that she had been advised by Mr. Kenrick to be mesmerised, but as she knew nothing about it, she would abide by my advice, to which I replied, that there were several well authenticated cases on record, in which surgical operations had been performed, under mesmeric influence, without the consciousness of the patient; that I would be happy to test the subject in her case, and that I would endeavor to mesmerise her, instead of operating as had been proposed, on the day following.

On the 4th January, at 11 o'clock, A.M., I called on Mrs. Clark, and was informed that on the preceding evening she had been put to sleep by Mr. Kenrick (at whose house she resided.) I then mesmerised her myself, and induced sleep in about fifteen minutes. Finding my patient susceptible to the mesmeric influence, and reflecting that it would not be convenient for the same person to maintain this influence and to perform a surgical operation at the same time, I requested Mr. Kenrick to mesmerise Mrs. Clark morning and evening, at stated hours, until insensibility could be induced.

This was regularly done, with gradually increasing effect, when on the evening of the 6th January, sleep was induced in five minutes, and the prick of a pin was attended with no manifestation of pain. The sittings were continued, and the patient's insensibility daily tested by myself and others in various ways.

Fully satisfied now of our power to induce total insensibility, I determined to operate upon her the next day at noon, but carefully concealed any such design from the patient and her friends, who did not expect its performance until several days later.

On the 20th of January, 20 minutes past 11 A.M., Mrs. Clark was put to sleep in forty-five seconds, without touch or pass of any kind, the facility with which the mesmeric influence was produced having gradually increased at each sitting. At 12 o'clock, M., in the presence of Professor's Ford, Mead, Garvin and Newton, and Dr. Halsee, the patient being in a profound sleep, I prepared her dress for the operation, and requested my professional brothers to note her pulse, respiration, complexion, countenance, &c., before, during, and after the amputation, in order to detect any evidence of pain, or modification of the functions. As Mr. Kenrick had never witnessed a surgical operation, he feared he might lose his self-possession, and requested to be blindfolded, which was done. He now seated himself on the couch near the patient and held her hand in his during the operation. This was accomplished by two elliptical incisions, about eight inches in length, comprehending between them the nipple and a considerable portion of the skin, after which the integuments were dissected up in the usual manner, and the entire mammæ removed. It weighed sixteen ounces. The wound was then left open about three quarters of an hour, in order to secure the bleeding vessels, six of which were ligated. The ordinary dressing was applied, and all appearances of blood carefully removed, so that they might not be seen by the patient when aroused. The amount of hemorrage was rather more than is usual in such cases.

During the operation the patient gave no indication whatever of sensibility, nor were any of the functions observed to those present modified in the least degree. She remained in the same sound and quiet sleep as before the use of the knife. Subsequently the pectoral muscle, which had been laid bare, was twice or thrice seen to contract, when touched with the sponge in removing the blood. About fifteen minutes after the operation, a tremulous action was perceived in the lower jaw, which was instantaneously arrested by the application of the mesmeriser's hand to the patient's head. This phenomenon recurred in about ten minutes after, and was again in the same manner arrested. Professor Ford, who counted the pulse and respiration, states that before any preparation was made for the operation, the pulse was 96, and the respiration 16 per minute; that after removing the patient to arrange her dress for the operation, and just before this was commenced, the pulse was 98, and the respiration 17; that immediately after the detachment of the breast the pulse was 96 — respiration not counted; and that after the final adjustment of the bandages and dress, which required the patient to rise and move about, the pulse was 98 and the respiration 16. All present concur in stating that neither the placid countenance of the patient, nor the peculiar natural blush of the cheeks, experienced any change whatever during the whole process; that she continued in the same profound and quiet sleep in which she was before noted, and that, had they not been aware of what was being done, they would not have suspected it from any indications furnished by the patient's condition.

The patient having been permitted to sleep on about half an hour after the final arrangement of her dress, the mesmerizer made passes over the seat of the operation in order to lessen its sensibility, and aroused her in the usual manner, when she engaged in cheerful conversation with Mr. Kenrick and myself, as though she had no suspicion of what had taken place. I then introduced to her the gentlemen, who had placed themselves so as not be seen by her on awakening, and observed that I had invited them to come in during her sleep, in order that we might test her insensibility, preparatory to the operation. After a few minutes of conversation, I asked her when she would like to have the operation performed? To which she replied, "the sooner the better," as she was anxious to get home. I added, "Do you really think that I could remove your entire breast when asleep without your knowledge?" Answer — "Why, doctor, the fact is, that from the various experiments I am told you have made on me, I really do not know what to think of it." "Well, madam, suppose I were to perform the operation one of these days, and to inform you of it when you awake, would you believe me, and could you control your feelings, on finding that it had been done?" Answer: "I could not suppose that you would deceive me, and of course I would be very glad, but would try not to give way to my feelings." "Have you perceived, since your arrival here, or do you now perceive, any change in the ordinary sensations of the affected breast?" "No, sir, it feels about as it has done for some time back."

About a quarter of an hour having elapsed since she awoke, I then told her that as we found her in a proper state for the operation, I had performed it, and that the breast was now removed. She expressed her incredulity — said I was certainly jesting, as it was impossible that it could have been done without her knowing it at the time, or feeling any thing of it now. She became convinced only on carrying her hand to the part and finding that the breast was no longer there. She remained apparently unmoved for a few moments, when her friends, approaching to congratulate her, her face became flushed, and she wept unaffectedly for some time. The wound healed by the first intention.

In laying the above narrative before the profession, it is due to the cause of truth to state, that it has been submitted to all the physicians at the operation, and that I am authorized by them to say that it accords in every particular with their own observations, so far as they were present.

I should also add that, having no other object in view than the establishment of the fact that a surgical operation may be performed under such circumstances without the consciousness of the patient, I have designedly avoided any mention of the various and interesting mesmeric phenomena manifested prior and subsequently to the operation. These have been carefuly and judiciously recorded by Mr. Kenrick, whose well-directed zeal has enabled him to collect a body of highly important facts from a field unfortunately explored too exclusively in ignorance and charlatanism.

AUGUSTA, Ga., 1st Feb., 1845.

FOR THE ST. LOUIS MAGNET.

THE MAGNET.

When darkness shrouds the mighty deep,
Or storm and lightnings thicken fast,
When billow after billow sweeps
The deck, of canvass, men, and mast;

Of every other guide bereft,
The sailor clings to one alone—
The first—the best—the last, is left—
It is *his* priceless *Magnet Stone.*

The sea of knowledge spreads afar—
Man's little bark would fain explore;
Yet guided by a glimmering star,
He cannot venture far from shore.

Another science lights the fire
Whose light shall gleam from sea to sea;
Let truth alone be man's desire—
Let truth his mental pinions free.

The Magnet points the wanderer home,
As lightning follows down the rod—
This Magnet points to all who roam,
Through nature, up to Nature's God.

P**** S*****.

THE

SAINT LOUIS MAGNET.

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EDITOR'S ADDRESS.

We have shown in the preceding number, the necessity of correct conclusions. We shall now proceed to show, that truth and falsehood, belief and disbelief, depend upon *forces* more definite in their action, and more immutable in their operations, than the mere caprice of the human mind. There is nothing possessed of dimensions or qualities, but what is governed by undeviating laws; unless an effect may be produced without a cause. Could this be possible, however, discord would supplant harmony, and nature's works would crash together in awful confusion, and chaos would of necessity prevail!

As far back in the lapse of time as history will carry us, there appears to have been two great and universal *forces* recognized as pervading the universe. These *forces* have been variously modified by different individuals, parties and sects, of all ages and every clime, and suited to every circumstance, in good and evil, truth and error, belief and disbelief. Every thing of which the human mind can conceive, organic or inorganic, material or immaterial, appears to have its positive and negative *forces*, by means of which it may become Magnetic, exhibiting the phenomenon of attraction and repulsion.

It is, therefore, undoubtedly true, that these magnetic *forces* pervade all nature, animate or inanimate, organized or unorganized, differing, only in the degree of their manifestations. These *forces* could not be expected to exhibit the same appearance, when manifested through a gross substance, as they would when manifested through an ethereal substance. The shades of difference will be as various as the grades of matter or mind through which they are manifested. This is obvious to every observer, however limited may be his sphere of action.

These *forces* are constantly being manifested through the peculiar tastes of individuals, — their likes and dislikes. Attraction and repulsion are as obviously manifested in every feeling, thought, and action of the human family, and the lower animals, ranging down throughout the whole vegetable tribes, when philosophically investigated — as has ever developed itself through the mineral. The principle is the same, manifested through the entire works of nature, only differing in their modifications by the variedness of organization in organized beings, or the various elementary compounds in unorganized substances, together with the quantity and quality of the matter of which both or either are composed. Every object, be it animate or inanimate, possesses feeling, or a degree of sensitiveness peculiar to itself; and by means of which, it may be agreeably or disagreeably affected. Hence, arises those *forces* which we call attraction and repulsion. These *forces* are known to exist in a high degree in the mineral kingdom, and a careful and critical examination will demonstrate their existence in every species of the vegetable tribes; and it is equally plausible, that the animal kingdom, being the highest in the order of creation, will manifest these *forces* in the greatest degree of perfection. Just in proportion, then, as the organizations of the vegetable and animal bodies become more complicated in their structures, do these *forces* become more extended and intellectual in their operations. Hence, in tracing these *forces* from the most simple form of the mineral, through the complex structure of the vegetable, and continuing our investigations through the animal up to its highest link, what fields for contemplation present themselves to our view? But in consequence of the complex character of the organization of these higher orders of beings, wielding attraction and repulsion through the medium of the will, by jesture, by word, and by expression of countenance, it has, therefore, been almost beyond the power of man to comprehend the infinitely varied effects of these simple, but universal *forces* of nature. The want of sufficient mental power in man to discover that these *forces* are the creative and sentient principles in matter, in whatever form and degree it may be manifested, keeping up action and reaction — by means of which the law of equilibrium is maintained, and all nature harmonized — has given rise to the belief of all the varieties of *satanic* influences: as witches, wizards, spectres, ghosts, and every manner of superstitious phantasms, to which the human mind has been subservient.

When we take this subject into due consideration, and give it that attention which its importance demands in philosophical investigations, we will discover that attraction and repulsion are manifested throughout the mineral kingdom, by means of an imponderable agent or cause, known and acknowledged to operate between all bodies; which can be nothing more nor less than the *spirit* of these bodies, acting upon each other by means of radiation, as light from a centre. What is here meant by *spirit*, is the most ethereal of all matter, imponderable, invisible, unconfined, and never at rest;—filling all space with its presence—possessing the power of action and reaction. If the equilibrium of this ethereal matter had not been disturbed by the action of these *forces*, it is scarcely possible that tangible or gross matter in any form would have ever existed; but one expansive ocean of smooth, unruffled, ethereal matter, would have filled immensity with its presence; attraction and repulsion unknown, and the innumerable orders of the three great kingdoms of nature, with their beautiful attributes, which serve to adorn and embellish the whole economy of nature and of Nature's God, standing forth as ever living monuments of the all-powerful and ever-varied action of these grand and immutable *forces*, condensing and combining ethereal matter into solid and tangible forms, and again reducing these forms to their simple element, — ethereal matter.

This *spirit* may be called an atmospheric emanation, which radiates from all bodies, having an affinity for each other, tending to consolidate as matter round a nucleus, or a repulsion tending to separate the particles of matter, or bodies, as heat repels heat, when generated by two distinct bodies; the same principle holding good in cold bodies, force, of whatever kind it may be, will repulse that which is equal to itself. For illustration, take two hot balls of equal temperature, and place them sufficiently close, and the heat will radiate or be thrown off from each, with sufficient force to repel that of the other; and this repulsion, will be in proportion to their proximity, and the degree of their temperature. These opposite forces must of course repulse each other, upon the same principle that opposite currents of atmosphere, or of water, would repulse each other, and for the same reason. Two equal and opposing minds would repel each other upon the same principle, being strictly in harmony with the law of equilibrium. But if one ball should be positively charged, and the other negatively, the positive ball would part with its heat or caloric, and the negative ball would receive until an equilibrium would be established, in which state they would mutually repulse each other, for the reason, that their forces, or power, had become equal. The same phenomenon is produced by two cold bodies, although its action is not so perceptible.

The manifestation of these *forces*, or spiritual action in the vegetable kingdom, is much more complex in character, and modified as we find it here, it approximates what we may more properly call a vital action. Vital action it undoubtedly is, for without it matter, under whatever form it may appear, can neither possess sensation or locomotion. Did not *spirit*, under some modification, pervade all matter, one particle, or body of matter, would have no power to act upon itself, nor upon any other particle of matter, or body, with which it was surrounded. Consequently, neither sensation nor locomotion could exist. This power of sensation and locomotion, is developed in proportion to the complexity of structure and perfection of the organization of matter, through which this *spirit* is manifested. Hence, we find it very imperfectly developed in the mineral kingdom. One particle or body of mineral possessing little or no power to act upon itself, but a fair proportion of power to act upon other particles of matter, or bodies, with which it may be surrounded, as in attraction and repulsion. The vegetable kingdom possesses these forces in a higher degree of perfection; but with less power to act upon other bodies or particles of matter, it possesses far more power of acting upon itself, imitating man in his voluntary motions. The vegetable kingdom — occupying, as it does, the middle ground — filling up the intermediate space between these two extreme kingdoms of nature, the mineral and animal — extending the hand of fellowship equally to both — might naturally be expected to vary the modification, of these manifestations, as it approximates the one or the other.

A careful observation of the various vegetable orders, will satisfy any one, that what is here hinted at in a few general remarks, will bear the strictest scrutiny, even in the minutia. Mark one species of vegetable, the magnet plant, with its taper leaves, guiding the traveller in his way, by always pointing north and south; and another shrinking from his touch, as if conscious of man's destructive power. With what tenacity do plants adhere to light? Observe the sapling in the dense grove, striving to outstrip its fellows, that it may enjoy the light of the sun, and catch the first sprinkling of the refreshing dews and showers. The plant which has been so unfortunate as to be imprisoned in the cellar, shrinks from perpetual darkness, as an enemy robbing it of its green and healthful color, and exerts all its energies and powers of locomotion to meet the light which may be admitted through the windows and other interstices. Most plants possess sufficient intelligence to control their roots, change their course, and send them off in the direction of brooks, and fertile soils, that their food may be of the proper quantity; and some even possess the power of detaching their roots from one location, and floating upon the surface of the ocean, in search of a more desirable and bountiful rock, to which they may lay claim. It is worthy of remark, that the acacias, called the mimosa eburnea, which flourishes in the burning climes of India, possesses such extraordinary sensitiveness and foresight, that upon a dark cloud passing over, the leaves immediately fold themselves up, resting one upon another, like tiles on a roof, for mutual support and defence. The leaves of this sensitive tree are so tender, that, otherwise, when the rains fall they would be pressed down and destroyed by the thorns underneath.

Here we perceive a remarkable degree of sensitiveness and foresight. Vegetable matter, with organizations sufficiently complex, manifesting these *forces* in that degree of perfection which entitles them to sensation and locomotion suitable to their wants. Thus we may trace this sensitive vital action, bordering on reason, from the simplest form of the mineral, up through the whole vegetable economy, conclusively establishing, that nature is and can be no other than a harmonious grouping of affinities, sensations and motions.

Hence, we must perceive, that sensation, locomotion, and reason, are manifested through matter in proportion to the perfection of those *forces* wielded by every particle, or body of matter, in acting upon itself, or on other particles of matter, or bodies with which it may be surrounded; as one man may act upon other bodies, or upon himself, either mentally or physically. One vegetable upon other bodies, or upon itself in controling its actions. The power of one particle or body of mineral to act upon itself, is so imperceptible, that it probably could not be made sufficiently intelligible to the general reader, in such a limited article. But all know the power of one particle, or body of mineral to act upon other particles or bodies of matter, and that this power of action is in proportion to the quantity of this universal *spirit* possessed by the acting body. There is evidently a sympathy existing between the mineral and vegetable, and connecting both with the animal, uniting the three in one, in *spirit* and in substance; as is demonstrated by chemical analysis. The difference in the combination of their elementary particles, through which this *spirit* is manifested, varies the degree and manner of the action of their *forces*. The mineral through these *forces* acts upon the vegetable, and the vegetable through the same medium returns its modified action upon the mineral; and both exert a greater or less influence over the animal, which returns the influence of these *forces* over both in the highest degree of perfection, mentally and physically. The vegetable is supported and partly nourished by the mineral, and the mineral is produced again out of the decomposition of vegetable matter. The animal is principally dependent on both for his existence and support, and to both again does he return, showing a mutual dependence throughout the whole of nature's works.

I do not wish to be understood as affirming that minerals and vegetables are sensitive as animals; but that they possess sensation and locomotion, attraction and repulsion, the positive and negative *forces* as minerals and vegetables, and that these *forces* are possessed in common by all bodies, only in different degrees of perfection, which depends on the perfection of organization in the vegetable and animal kingdoms, through which these *forces* are developed, and of the different compounds in the mineral, through which the same *forces* are manifested.

In tracing these *forces* through the animal kingdom, we find them much more complex in character, and more perfect in their operations. They are not only possessed physically but mentally. Mind not only acts on mind, but mind on matter, as well as matter on matter; and here in man, the highest order of beings, we find these *forces* manifested in the highest degree of perfection, and wielded for every variety of purpose, producing the most astonishing effects. How does one individual attract or repulse another?

We see one individual possess an affinity for another, who would probably repulse that person's most intimate friend. So it is that whole bodies of men, possessing similar views and feelings, having an affinity for each other in common, unite and form communities, repulsing those of different views and feelings, who unite and form opposite communities. The action of these *forces* between individuals and communities, are as essential to intellectual and moral improvement in the human family, as the action of the same *forces* between the poles and equator are to a congenial climate.

Without the action of these *forces*, individual existences would not be known. All materiality would return back to its *immaterial*, or original elementary principle, filling the immensity of space with a dead or inactive *spirit*, without any power to form new compounds.

These *forces* manifest themselves through the highest and most refined mental operations of man. There is not an idea formed by the mind through which these *forces* are not manifested. And here is the point which we wish to reach. Every proposition, the terms of which are understood, must necessarily occasion belief or disbelief, (*i. e.*) it is either positive with our feelings, or it is negatived by them. These *forces* are as demonstrably manifested here, and act in harmony with as immutable laws, as they do in the mineral, vegetable, or in any of the physical operations of the animal kingdom. And it is in harmony with these *forces*, that we are agreeably or disagreeably affected, either mentally or physically, in loving or in hating, believing or in disbelieving.

The ultimate conclusion is, then, that there is a universal *spirit*, possessing the power of action and reaction, pervading all matter, however material or etherial it may be, governing, directing, and controling every thought and action, through the efficient agency of these immutable *forces*.

Hence, we believe, and how can we disbelieve, before our minds are convinced of our error? And how can we be convinced without sufficient proof, which cannot be repulsed by the negative *force* of our minds? Or we disbelieve, and the same reasoning applies. Therefore, it is just as impossible for us to change our opinions, or our beliefs and disbeliefs, as it is for matter to change its negative and positive *forces* without a change of condition. Let any one try his power of changing his opinions, or to believe or disbelieve what he pleases, without a change of evidence, arguments, facts &c., and he will find it just as impossible, as to annihilate spirit, or to create matter out of nothing. Yet we find one half of the world abusing the other for their beliefs and disbeliefs, or the erroneousness of their opinions. When this part of our subject is more fully investigated, better understood, and more justly appreciated, we will substitute reason for abuse, deduced from proper evidence and undeniable facts.

PHRENOLOGY.

[We said nothing of Phrenology in our first number, not because we do not esteem Phrenology equally with Mesmerism, but for the reason that Mesmerism is less understood than Phrenology, and we should like to see them go hand in hand, like twin sisters, as we deem them inseparably connected. This subject shall receive a share of our attention henceforth.

It has been suggested to us, that many of our patrons may not be familiar with those facts which go to demonstrate the truth of Phrenology, aside from those discoveries which are made through the medium of Neurology and Mesmerism. To such we recommend the following article from the South Western Christian Advocate. And we must congratulate the friends of science, on the appearance of such an article in the columns of that paper,—one which has heretofore done no little in opposition to the claims of Phrenology.]

COMPARATIVE ANATOMY.

Man has, by general acclamation, been placed at the head of the animal creation; and it is in him we find that beautiful and complicated mechanism which conduces so much to the perfection of life. As the inferior orders of creation descend in the scale of animated nature, becoming more remote from the formation of man, we find them gradually losing their perceptive excellence, their instinctive intuition; and the long line of locomotive being is at last merged in the inertia of vegetable existence.

Were it really necessary, we might *speculate* on the probable and apparent *causes* of the gradual declination in the scale of animal being;

nor would such speculations be wholly irrelevant to the subject in hand. But a few plain, simple *facts* will set the matter in a clear view.

The whole animal kingdom has been divided into six great classes, and the distinguishing characteristics of each class drawn from the peculiarities of the *internal structure*. This classification is quite illustrative of our present design; and our object in calling attention to it is, to show that the gradual improvement of the animal race throughout its rising gradations, is dependant, for the most part, upon the concomitant development of one single system, the nervous, of which the brain is the very centre.

The first class to which we invite attention is Vermes or Worms. These have a heart with *one ventricle*, but *no auricle;* the blood is cold and white, and, the organs being very few and exceedingly simple, the phenomena of life have but little variety.

The second is Insecta, or Insects. These have a heart precisely like the first, and the composition and color of the blood is the same. They differ from the first class in having antennæ, or feelers.

Pisces, or Fishes, constitute the third class. Here the heart is a little different. In addition to the ventricle, the heart has an auricle. The blood is red and cold, and the bronchæ, or gills, are external.

In the fourth class, Amphibiæ, or animals that can live in two elements, the heart is very similar to that of the third; the lungs, however, are internal, and respiration is nearly voluntary.

The fifth class, Aves, or Birds. Here the heart has *two* ventricles and *two* auricles. The blood is red and warm, and its circulation is carried on through the pulmonary structure, by means of the right ventricle and auricle of the heart, while the left ventricle and auricle of the same organ propel the general or systematic circulation. It is only in this last class we find any considerable development of the *cerebral* organs, and accordingly *instinct* is here observed in great perfection. But, like the inferior classes, it is oviparous.

The sixth and last class is the Mammalia. This embraces all those animals that are viviparous. Here the organization is comparatively perfect, the organs of the body numerous, and the phenomena of life exceedingly complex and multiform. The volume of the brain is astonishingly increased in proportion to the size of the animal, and the nerves emanating from it are more distinct, their destinations more marked, and their offices more apparent.

According to Linnæus, man forms the first genus of the first order of the last class. The simia, or ape, constitutes the second genus of the same order and same class. Now, where the varieties of these two genera approach each other, they are absolutely so nearly blended, and even mixed together, as to present no striking difference. For we are really informed that, in Sumatra, an island inhabited by a most degraded species of the human race, and where, also, the satyrus, or ourang outang, is found in great perfection, the two have, on some occasions, abolished the generic differences which nature seems to have placed between them, and, by consanguinity, have resolved themselves into *species* of the *same variety*. The Chimpanzee, or simia troglodytes, is said to resemble the human race even more than the satyrus, or wild man, as he is called. But this last variety approaches near enough to convince every one of his superior endowments over his less symmetrical brethren. It is said the inhabitants of the Ganges live in great fear of these animals, and regard them as a foreign nation, who do not speak for fear of being made to work. They frequently present sticks to travellers, and compel them to fight. Picard informs us, that, in the province of Sierra Leone, there is a species so strong-limbed and industrious, that, when properly trained and fed, they work like servants; that they walk on the hind feet, will pound substances in a mortar, bring water; and Shoutten remarks, they are taken in snares, and taught to use their fore feet as hands in performing different operations, as rinsing glasses, carrying drink round the company, turning a spit, &c.

Gaut says he saw a very extraordinary ape in Java. It was a female, and very much resembled the Hottentots at the Cape of Good Hope. She made her bed very neatly every day, lay on her side, and covered herself with the bed clothes. When her head ached, she bound it up with a handkerchief, and exhibited many other performances which he says were extremely singular. Wadstram mentions one that ate, drank, slept, and sat at table, like a human being.

We have taken the liberty to make this apparent digression for the purpose of showing, conclusively, that as animals approach the human form, they improve rapidly in the variety and perfection of their faculties; and what is undeniable, that change of structure consists in nothing so much as in the shape of the head, and, as a matter of course, in the configuration of the brain. We might inquire, What particular organization is invariably connected with the development of mind? Is it in any modification of the structure of the lungs? We are sure it is not. Is it resident in any of the tissues of the body, aside from the nervous? We answer, No. Does it consist in any conformation of the heart, or any other portion of the circulatory system? We are convinced it does not; for the heart of a goose, for example, is very like the human heart; but how astonishingly different is the brain! It must be evident to every one, then, that a structure so uniformly connected with mind as that of a large and well shaped brain, must of necessity have something to do with it; for one unvarying cerebral structure is always found where the least trace of reason is observed.

It is a fact, that every part of the human system is so nearly similated by the same organs of the inferior animals, that the anatomy of man may be advantageously studied by means of these alone. But the brain is merely *resembled*, not completely represented, by that of any other creature; and that resemblance consists much less in the external figure of the brain, than in its internal construction. It will be conceded, however, we think, by all, that the perfection of the simious animals is in the circumstance of their resemblance to man, and the superior size of the head, together with the consequent development of the other portion of the nervous system, is the main source of that perfection.

But, to lay aside all semblance of speculation on this subject, to what extent does our own observation extend? Have we not been accustomed to associate great intellectual strength with a large brain, with as much propriety as strong and well-developed muscles with a wrestler. And whoever saw a natural idiot, whose head, unless it was dropsical, did not, by the precipitate recession of the fore part, the general diminution of size, or irregularity of the shape, at once display the character of the individual? More than two thousand years ago, men were aware of the vast influence exerted on the intellect by the configuration of the brain. Accordingly, we find the ancients constructed the statues of Jupiter, their supreme god, with a forehead so prominent as to occasion a slight deformity. And we recollect to have heard a popular minister remark, that he had actually recognized the most able and talented of our senators in Congress from the size and figure of the head alone.

But there is another view we may take of this subject, if possible, still more conclusive and unanswerable. Wherever the seat of the intellect is in man, whatever organ *is* the instrument or medium of its conveyance, that part will necessarily present numerous morbid appearances in MANIA. Now, what part of the body, what organ of the whole system, invariably shows change of structure, and real disease, in derangement of the mind? We answer, without the least hesitation, the brain. It is true, madness has been ascribed to disease of the liver, and this opinion was advanced in the days of Hippocrates. But the fact is, numerous persons have been deranged in whose liver not the slightest original disease could be observed; and, on the contrary, in inflammations and abscesses of the liver, no mental aberration is present, unless through sympathy of the brain. Mania has been referred to the spleen, to the intestines, to the nerves apart from the brain. But the most unwearied anatomical investigations have never confirmed either of these opinions, but the contrary. There have been some who have placed it exclusively in the mind. But there are equally weighty objections to this hypothesis; for we cannot understand how impressions can be made on the mind except through the medium of matter: and again, the brain is uniformly affected in persons who have died in a state of insanity. It is a fact which cannot be denied, that phrenitis, apoplexy, palsy, epilepsy, &c., which have their seats, in a great degree, in the brain, are the frequent cause of madness, and perhaps produce more instances of this disease than all things besides.

Can we hesitate, then, when we see the full development and healthy action of an organ so essentially connected with the display of mind; and again, when that organ is diseased, its structure changed, that same mind languishing in gloom and descending into driveling maniacy,—can we hesitate to assign to it the grand, the noble function of being the medium through which the sublime phenomena of mind are displayed?

But we are gravely told that the testimony of the Bible is in favor of placing the point of union between mind and matter in the heart! We are very far from undervaluing the authority of the Scriptures; yet we feel assured that vague and incorrect notions of certain passages have done much to retard the progress of literature.

We should be very cautious in quoting the Bible for authority in the support of any philosophical theory, as it rarely throws any light upon merely scientific subjects. One of the passages of Scripture relied upon to prove the heart to be the seat of the mind, is the following: "And God saw that the wickedness of man was great in the earth, and that every imagination of the thoughts of his *heart* was only evil continually." We cannot say what Greek word in the original has been translated "heart," as a copy of the septuagint is not at hand; but we think it might be "kardia," perhaps "kear," or even "hetor." Now, either of these words, without the least violation, could have been rendered "mind." Then it would have read, every imagination of the thoughts of the *mind*, &c. But admit, for the sake of argument, it really and properly means the *heart*, let us observe the very next verse: "And it repented the Lord that he had made man on the earth, and it grieved him at his *heart*." Now, who does not see the imbecility of ascribing a fleshly heart to God? The truth is, nothing can be more conclusive that it should have an *immaterial* signification; and beyond the shadow of a doubt does signify the mind, or it never could have had a proper application to the spiritual God.

MEDICAL.

CASES.

For the want of room, we report only a few of the most interesting cases we have on record. But we shall not neglect to revert to this interesting part of our subject in each number, for the especial benefit and satisfaction of our numerous patrons. This we deem a duty which we owe to the cause of truth and humanity. It is not our purpose to monopolize this most successful of all remedial agents. We think the practice as well as the theory, and the fact that it is a remedial agent in most, if not in all cases of disease, should be made known to the people in general. The world at large should know the whole truth practically, and theoretically, if they would be benefited by it to the full extent of its efficacy. And if a philanthropic spirit and not a mercenary one prompts its advocates to action, this must soon be the case. Probably no discovery in the arts and sciences, has ever made more rapid advances among the mass of the people than the science of Animal Magnetism. It only made its entry in the United States, in the year thirty-six, with Mons. Poyen, and now eight years have scarcely elapsed, when a knowledge of it has spread over the whole vast country; and like our mighty fertilizing rivers in their onward course, it has broken down all barriers, and united the whole length and breadth of the land in its common cause. This is sufficient proof that the right spirit pervades its advocates in the main; notwithstanding too many of them may be mercenary in the extreme. This unfortunately has been the case with every new discovery, which has condescended to become terrestial and abide with man. It would be very strange, indeed, if Mesmerism formed an exception to this uniform rule, when the Christian religion, with all the holy reverence which has been thrown around it, has bowed in strict obedience to its sceptre!

V. PHRENITIS.

A German boy in this city was severely attacked with this dangerous disease. The inflammation being seated principally in the organ of reverence, which was preternaturally hot. His conversation was then of God and angels. He was so franctic with delirium, that it required two persons to hold him while being mesmerized. His ravings, however, gradually subsided under the influence of the Mesmeric passes. After mesmerizing him some three quarters of an hour, the excitement left the organ of reverence and settled in that of destructiveness, which was fully developed. His conversation now changed to that of blood and destruction.

The manipulations being continued, he soon ceased his conversation and commenced singing. Upon relieving him of his musical fit, his individuality became quite excited — his power of observation became very acute, and every object with which he was surrounded, appeared to possess new and more attractive qualities. By continuing the mesmeric operations for some few days, the patient was perfectly restored to health, and when last heard from was at work as usual.

The manner of operation in this case, was to place the hands on the part of the head affected, and hold them there until an equilibrium of temperature was established, when the manipulations were made from the head to the lower extremities, resting the points of the fingers occasionally at the pit of the stomach, or epigastrum. The holding of the hands on the part affected, the epigastrum, and the manipulations, were made alternately through each sitting, which was continued from thirty minutes to an hour, twice a day.

This boy was treated by the regular practice of Calomel and the Lancet for some two weeks before I was called in. The family informed me that under this treatment, the patient had daily grown worse.

VI. SPINAL AFFECTION.

Mrs. A——— was afflicted with this critical disease for some two years, in which time she had exhausted the ingenuity and skill of physicians far and near, as well as the efficacy of the drugs which they wielded. After despairing of all hopes of recovery, she was prevailed on to try mesmerism as the *dernier resort*, being assured that it would produce no bad effect, if it should do no good. After being regularly mesmerized for some three months or more, she was perfectly restored to health by mesmerism alone. Her strength gradually returned, till she had as good use of herself as she ever had. A general influence was produced in the first place over her system, by the common mode of magnetizing, which is explained in the first number of this work, in the article on "Magnetizing." The manipulations were then made from the back part of the head down the spinal column, letting the hands occasionally rest upon the affected part, which in this case was the dorsal vertebræ. The mesmeric sittings were continued each day about thirty minutes.

A LEARNED EDITOR.

We send the editor of the Sangamo Journal, the First Class Primmer for children, a very pretty little picture book, in place of the Magnet, as he does not appear to be acquainted with science in its present advanced stage. Neurology, Psychology, Magnetism, &c., are links in the chain which the *learned* editor has not reached, or he has otherwise overlooked them, as being too small matters to engage the attention of such a *giant* mind. *The* editor made one small mistake in quoting these "ologies" by substituting "Pegology" for Phsychology, but even at this we were not surprised, as his *terrestrial* mind is undoubtedly better acquainted with pegs than *souls*.

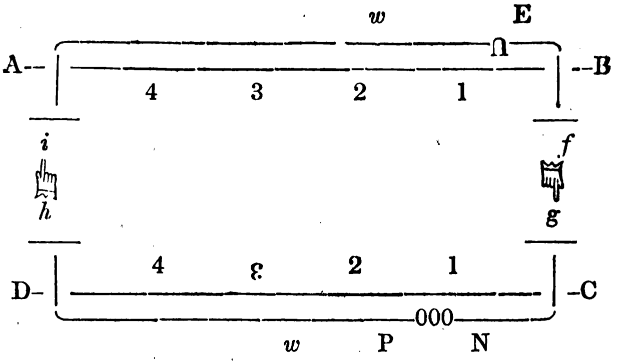
These "ologies," to such a mind, are senseless expressions, which grate harshly upon the ear. The Sangamo Editor should not take an alarm at this, for it is usually the case, the first time children, or even men of small calibre, hear words spoken with which they are not familiar, or even see them in print, that they sound very barbarous and awkward, and to them, unmeaning terms. Like the child, with the expression Sangamo editor, the first time he heard it spoken, it was a very barbarous and complicated term, which created a great deal of confusion in his infantile mind, and the little fellow shuddered at the idea of mastering and becoming acquainted with its orthography, signification, &c., in all its various bearings. But his inquisitiveness prompted him to the task, and the word Sangamo was first taken into consideration and written down in large letters, S A N G A M O, and each letter in its proper order, &c., perfectly mastered. Then came its signification, which by inquiring he learns is a noun, the name of a county in Illinois, &c. The little fellow next took up *editor*, and finally mastered its orthography after the same fashion he did Sangamo. But, then its definition, "here's the puzzle" stammered the child — bursting out in tears! "But to the task," he sniffled, and a host of dictionaries were searched; — his mind soon became confused, his temples throbbed, his brain fevered, and he was compelled to retire to bed in hopeless despair! The next morning he appeared in the family circle, with a glimmer of hope beaming upon his waking senses. It had occurred to him that by inquiring of the wise heads of the day, he could have the difficulty solved, and he should yet become familiar with the definition of *the* editor. In this, the little fellow has assiduously persevered; but like the *ignis fatuus* it has still eluded his grasp. But, nevertheless, he has not yet condescended to ridicule *the* editor, because he could not understand it!!!

The number of "ologies" is another bugbear in the mind of the Sangamo editor. We recollect a little white-headed boy, a classmate of ours, at school. When he commenced the study of Geography, he cast his eye over the map on which he was to learn the names, locations and boundaries of the states, counties, towns &c., and with perfect astonishment at the multiplex character of his lesson, he cried out, "la me, master! I never can learn all this!" But his preceptor gave him some sugar plums, and encouraged him by observing that "I can't, never performed any thing," and that by proper study and perseverance, his mind would expand, and become sufficiently capacious to grasp, recollect, and comprehend the whole. The preceptor's words proved true, the little white-headed boy persevered, and his mind expanded accordingly; — the difficulties one by one gave way, and finally were all surmounted!

So even may the editor of the Sangamo Journal take courage. A little perseverance will remove all the difficulties in relation to these "ologies" and he may yet become a *gentleman* and a scholar! In concluding our remarks to the Sangamo editor, we would present one other motive to induce him to become wise, and consequently *liberal* — honest, and consequently *respected*, — "Doing to others as he would wish to be done by"— which is, "*Sui cuique mores fingunt fortunam.*"

ELECTRO-MAGNETIC TELEGRAPH.

Our readers were made aware, some time since, that Mr. Morse had devised a plan for conducting the electric fluid across rivers by means of the water itself. As the particulars of this plan have not been presented to the public through the papers, we annex a description of it published and furnished, by Professor Morse himself, to the Secretary of the Treasury at Washington. But before doing so, it may be well to state the facts which led to it. In the autumn of 1842, at the request of the American Institute, Professor M. undertook to give to the people of New York a demonstration of the practicability of his invention, by connecting Governor's Island with Castle Garden—a distance of about one mile. For this purpose he laid his wires, properly insulated, beneath the water. He had just commenced operating, and received two or three characters, when his intentions were completely frustrated in the destruction of a part of his conductors by a vessel, which drew them up on her anchor, and cut them off. It was during the subsequent night, whilst suffering mortification at this failure, that he conceived the plan of arranging his wires along the banks of the river, so as to cause the water itself to conduct the electricity across. An experiment was made soon after at Washington, with success; and a series of experiments, made last fall, developed the law governing the passage of the electricity. The following diagram will explain the experiments referred to:—



A, B, C, D, are the banks of the river; N, P are the battery; E is the electro magnet; *w*, *w* are the wires along the banks, connecting with copper plates, *f*, *g*, *h*, *i*, which are placed in the water; when this arrangement is complete, the electricity, generated by the battery, passes from the positive pole P, to the plate *h*, across the river, through the water, to plate *i*, and thence around the coil of the magnet E, to plate *f*, across the river again to plate *g*, thence to the other pole of the battery, N. The numbers 1, 2, 3, 4 indicate the distance along the bank, measured by the number of times of the distance across the river.

The distance across the canal is eighty feet. On the 24th of August experiments were made showing that electricity crosses the river, and in quantity in proportion to the size of the plates in the water. The distance of the plates on the same side of the river from each other also affect the result. Having ascertained the general fact, I was desirous of discovering the best practical distance at which to place my copper plates; and, not having the leisure myself, I requested my friend, Professor Gale, to make the experiments for me. * * *

As the result of these experiments, it would seem that there may be situations in which the arrangements I have made for passing electricity across the rivers may be useful, although experience alone can determine whether lofty spars, on which the wires may be suspended, erected in the rivers, may not be deemed the most practicable. The experiments made were but for a short distance; in which, however, the principle was fully proved to be correct.

It has been applied, under the direction of my able assistants, Messrs. Vail and Rogers, across the river at Havre de Grace, with complete success—a distance of nearly a mile. [*Baltimore American.*]

MESMERISM AND THE DEVIL.

The following extraordinary article, which originally appeared in the London Tablet, we copy from the April number of the Catholic Cabinet, published in this city. We had previously seen the article, but avoided noticing it in our first number, from the impression, that the Catholic clergy were too well aware of the intelligence of the people of the United States, to adopt it as the position of that truly learned and scientific body in this particular latitude: but its republication in the Cabinet, shows that we were mistaken, respecting the intelligence of the mass; and that the exploded ideas of sorcery and withcraft, are on the eve of being revived—or otherwise the author and its republishers have acted injudiciously in this matter.

MESMERISM.

To the Editor:—

Sir: Two excellent articles on Mesmerism have already appeared in the *Tablet*, which may serve as a prelude to the reflections on that subject which I now address to you, and which I beg you to receive favorably.

The more the public becomes interested in this novelty, the more necessary it is that it should be accurately characterized. Now, Catholic science has more light to shed upon this question than the admirers of Mesmerism are aware of; for, while they confess themselves unable to do more than simply to record the existence of magnetic facts, without being able to offer any reasonable explanation of their cause, we, thank Heaven, admitting these facts, are able to explain their nature and cause, their means and their end.

You, Sir, have done wisely in imposing on the amateur mesmerist the importance of prudence and caution; for, as you leave it to be inferred, the Evil Spirit may be in truth the actual operator. What you hint at under the form of a doubt, or state with some reserve, will be confirmed by the following reflections. If any thinking person should rise up against our explanation, we shall be very glad to be furnished with such an opportunity of developing the positive and certain convictions which we have upon the matter. For we feel that an explanation, taken from beyond the bounds of natural science, drawn from the spiritual order of things, must appear repugnant to many at a period like this, when men appear to explain all things without reference to God.

For a long time the known facts of Mesmerism were contested, and their truth denied. This was wrong. Without a doubt, it has produced what may be called *false* facts: no doubt, also, things which were capable of a natural explanation have been sometimes imagined to be marvellous; but, notwithstanding this, there remain facts, constant, well proven, irrefutable. It concerns not us, then, to deny the existence of the magnetic phenomena; we must admit and consider them carefully; we must see to what order they belong, in order to discover the veritable author of them. What say the magnetizers themselves, and how do they proceed in their explanations? They all give as the efficient means, and the cause of the phenomena, those *passes*, which inject into the subject a certain fluid which they call magnetic. It is necessary that they should speak thus; they see nothing else; they are constrained to accept as the cause, the external forms which they have under their eyes.

But let us ask any man who has the least notion of psychology, whether there is any connection between the means employed and the effect produced? Is this pretended fluid any thing more than a word, without any real meaning, offered by ignorance to fill up a void? Who has ever proved the actual presence of this fluid? and if it really exists — which we fearlessly deny — what effect does it produce? This fluid, as well as the external forms which are said to excite it, being a physical matter, can produce only a physical effect; that is to say, a soporific state; a natural sleep, conformable to our nature; a repose, more or less complete, of the organs, without intuition. Now it is altogether otherwise; the effect that it produces — that is to say, the magnetic intuition — is of a nature and of an order altogether different from the cause to which they would attribute it. The best proof, moreover, that this fluid is but a vain explanation, is that the magnetizer can act upon his *subject* without contact, at a considerable distance, and even without his knowledge, by the sole action of his will.

Instead of proceeding, as they do, to lay down at once as a cause, a supposition without reality, to explain with such help the effects which are manifested, it is necessary to start with the effects themselves; to judge of them in their nature; to discover the agent which has given them birth.

Now, we find an effect which is supernatural — superhuman — that is to say, the complete exercise of the functions of the understanding or the mind, independently of the assistance of those organs to which their manifestation is subjected at their creation; such an effect is not the order of human or natural things.

Bodies present no obstacle, except to the corporeal senses; if, then, I see what walls or distance hide from me; if I read that which my eye cannot perceive; if I be present there where my limbs have not borne me; if I hear what my ear cannot hear, it is no longer in the human state that

I am acting; it is manifest that my spirit is freed from the servitude of the body; it acts alone, without the mediation, independently of the service of my senses, beyond the limits of that order in which my place has been assigned. This visible world being, according to Scripture, but the shadow and the figure of an invisible world, I can easily conceive that the spirit set at liberty may not be stopped by this shadow. To the spirit I say, which belongs not to the visible world, although it may be united with it, neither bodies nor distance may present obstacles, if any competent power shall have disengaged it for a moment from its slavery to the senses.

But this state is not of the human order: for a reason which we may not dare to state before the Church shall have explicitly declared it; the spirit has been placed by the Creator in this coporeal shadow, and it must depend upon it for all its functions, with the exception of thought; although it may govern the shadow as its master. When he acts alone, without the mediation of the senses, like a pure spirit, he employs only the single organ of speech, to manifest to the witnesses of the phenomenon the functions that it fills; he is even by that act momentaneously in an exceptional condition, different from that of his union with a body, the ministry of which is necessary for him to exercise the same functions in the condition of humanity. This explains, also, why it is that the somnambule, when awakened, knows nothing himself of what the witnesses have learned from him. As man, he knows nothing; because he has not acted in the order of humanity. He is ignorant of what his mind has done, because his organs have not lent any ministry. He, an organized being, knows only such things as his organs bear him witness of.

An exceptional condition, the momentary freedom from the slavery of the senses; such is the phenomenon produced in Mesmerism. This it is that must be established, that we may know to what order, natural or supernatural, the phenomenon belongs.

Can such a change in the human condition be attributed to any *passes*, to fluids, to the will of the magnetizer? Evidently not. The passes are a vain form, without effect; calculated to conceal the true efficient cause; the operators often neglect them; the fluid is a supposition without reality; and, if it existed even, it could produce no effect but one like itself, natural. The will is no stranger to the production of the phenomena; it is, indeed, the means; but it is not the author. The will is a command issued by one intelligence to another intelligence; if it obeys, and obeys in spite of itself, in an order in which man has no power, we must needs acknowledge that it yields to a superhuman power. But beyond man, and all that belongs to his domain, there is only spiritual power. Yes, it is in the spiritual order that we must seek for the actual operator of the magnetic phenomena, since he cannot be found below.

But here two authors present themselves, God and God's enemy; for this enemy, that Jesus Christ calls King and Prince of the World, although he be not absolute master in his own house—although his power is subordinate to the Divine permission, possesses nevertheless all the power over spirits which is necessary to work out "the mystery of iniquity" of which the Scriptures speak.

From which of these two powers do the phenomena of Magnetism spring? Is it God or the Demon that produces them? Do they belong to the mystery of salvation, or the mystery of iniquity that the Demon pursues. This question is to be solved by an examination of Mesmerism in its instruments, and in the facts that it produces; it is a tree to be judged by the fruit it bears.

Now, who will affirm that the instruments of Mesmerism and the fruits it bears are such as to induce us to attribute to God phenomena that He nevertheless permits. No *subject* has ever been cited who is, in the opinion of the witnesses, a person living a life of grace, nor an operator who is reputed holy, or bearing the fruits of faith, virtue, or holiness. The portrait which the angel of Tobias gives of those over whom the Demon has power might well find its place, and apply, in greater number of cases, to the *subject* as well as to the operator. This opinion may give pain, but it cannot be overthrown by mere negations or denials. But let us add, that there is no necessity that there should exist, either on the one part or the other, any explicit agreement or contract with the Spirit of Darkness. For many have tried to produce the magnetic sleep without ever succeeding, and those who have succeeded know not why or how; they themselves are more astonished at their own success than any one else. Many subjects have wished to experience this sleep, without the power; others have experienced it without the wish to do so; and all equally without understanding any thing about it. The subject and the operator, therefore, may be perfectly ignorant what the power is that acts through them without their knowledge: they may not have any evil intention in acting, *but they know not of what spirit they are.* It is enough that their hearts range them under the influence of the Holy Ghost.

Of what value *are the fruits*, the facts of the subject, in the magnetic sleep? They are all connected with the present and material life, with the physical world — the indication of a place, of an event, of a cause of a disease — they do not go beyond the limits of the earth. They concern the present, the past, but never the future, at least if the future fact has not received a beginning of existence, which renders it already visible in the principle, in the mind which conceived it, or in the fixed detertermination of him who willed it.

To what profit does Mesmerism tend? It is for the operator a speculation; for the subject a matter of curiosity, or of gain, if he make a trade of it; for the witnesses an amusement; for human pride an aliment; for incredulity a reply to the mysteries of religion; a means of reducing to the rank of natural facts the Gospel miracles; a motive for throwing into doubt all religious verities by the supposition that some day all will be explained naturally. Behold its fruits! Some may grow from it more manifestly evil, but these we will pass over in silence. To what spiritual principle do such fruits belong? What say you of the tree? There is nothing for the mystery of salvation; and the problematical cures which are attributed to Magnetism will not change in any degree the judgment which we here deliver.

We might go to state why all men cannot magnetize; why every body is not a subject; why so few are found of an easy dependence on the will of the operator. These questions concern the composition of men, the hierarchy of spirits; questions too vast for this article, and which perhaps would be premature at present. Let us rather, for the present, state why Magnetism has displayed itself in our time and to what end.

Incontestably it is an extraordinary instrument, and for an exciting motive, must have extraordinary things to combat. For, we know — the history of the past attests it — that there has never been attempted a single important work for the salvation of the world which has not had its counterpart for perdition. Hell has opposed to the Holy Spirit, its Spirit of Error: to the Gospel, its Gospel of Heresy: to the Apostolate, its Apostolate: to the miracles, its illusions. It has, like the Church of Jesus Christ, its Apostles, its doctors, its prophets, its pastors, its doctrine, its devotees, and even its heroes of crime and impiety. In a word, the mystery of iniquity always goes on, side by side, with the mystery of salvation. He, whom Jesus Christ calls the king of this world, disputes the world with him, foot to foot; apes his works, and opposes means to means. This is a spectacle which should be closely observed; it is the key of the history of times; the explanation of this incessant struggle of good and evil on the earth.

What, then, is the special character of our epoch? what is now passing on the scene which necessitates, on the part of the enemy, the employment of a means so novel? Two things, which are very remarkable, but not sufficiently remarked.

1. Materialism has had its day; it is past, it is conquered. Spiritualism springs up on all sides: but if the world no longer assert that all dies with men; if it perceive that there is no tomb for the spirit, the consequence of this truth will lead it into the way of faith, if the enemy do

not hasten to obscure the entrance. The existence of God is confessed; and behold, Pantheism immediately starts up, and, to confuse the idea, makes a God of every being in creation. The existence of a spirit in man is confessed; Mesmerism itself becomes proof of it; it banishes materialism; but mark the counterpart: In giving materialism its death-blow, mark whither Mesmerism conducts man; astonishing by its phenomena, it prevents his comprehending any thing; to hesitate about all religious truths; to believe nothing firmly. Thus, thanks to this instrument, the former incredulity falls only to give place to an uncertainty of the mind more fatal than the preceding state. Study and reflection will, no doubt, execute justice on this illusion, but who is brought to reflect in the midst of the rapid industrial movement which now absorbs all thoughts?

2. The second service which Mesmerism renders is this: Apart from this struggle of spiritualism against materialism, it spreads its veil over a great number of points, facts of spirituality, divine ecstacy, revelation, a very elevated education, all which it concerned the enemy to paralyze by analogous facts. In the hundred different ways which heaven employs in rousing men, whom it exalts even to itself; whom it illumines with its own light; it gives to some the voice of propitiation, to others the miraculous stigmata of the wounds of our Saviour; it dictates to others its prophetic wishes; extraordinary helps for extraordinary times!

Hundreds of thousands of witnesses have seen these prodigies — have published them; millions of souls owe their conversion to these miracles, yet they are, as it were, unknown; forgetfulness, pre-occupation, and doubt, paralyze them. In many places, the courts of justice have done to Government the service to imprison the important voices or the oracles; but nothing has been more efficacious against such facts of spirituality than the species of imitation of them which Mesmerism supplies, by opposing spiritualism to spirituality; magnetic intuition to the ecstatic vision; prodigy to prodigy; or phenomenon to miracle, and thus deceiving even souls of good will.

These magnetic phenomenon astonish, cause men to suspect the yet unknown secrets of nature — the properties of the human spirit, which, they say, science will sooner or later explain. Then they assimilate to these phenomena the miracles, holy ecstatics and prodigies which appear; so that the listener is led to believe that these divine facts are no more than the facts of Mesmerism; only natural facts which the ignorance of believers have exalted into miracles. Thus doubt and uncertainty struggle against all the holy reflections they experience. The end of the enemy is gained; the Divine warning is counteracted; whilst man, proud of the effects which he believes to be produced by Mesmerism, which is no more than a blind instrument, speaks with pride of his age, and worships its genius!

Such, we say it fearlessly, is the nature of Mesmerism, the order to which it belongs, the true operator, its fruits, the motive for its appearance, and its definite results. A PRIEST.

In the commencement of this article, if the writer does not confess, he at least leaves that to be *inferred*, which the Rev. I. T. Hinton so clearly proved during his lectures in Concert Hall not long since, that a knowledge of the power of Mesmerism as a remedial agent, and, to the uninitiated, strange and miraculous phenomena it exhibits, had for a long time been known to the priests and ecclesiastics of the Catholic church, and had been used for purposes unworthy their *professions of purity and disinterested philanthropy*.

The writer also as frankly acknowledges, that "the *known facts* of Mesmerism have been contested and denied." But at this late day, when truth has broken over this temporary barrier thrown in its course, and is irresistibly and triumphantly over-spreading the land, they have the magnanimity to acknowledge that "this was wrong," and the honesty (?) to admit that to be true, which they have not the hardihood still to deny. But why is this important admission made? Simply to make Mesmerism a target at which they can aim what they consider more poisonous and deadly weapons—superstition, and its consequent fanatacism.

We have not space in this number to review the entire article, and must leave the subject, after touching a few of the more prominent points. He fearlessly denies the existence of the nervous fluid! Would he deny the existence of a magnetic current which encircles the globe, and gives polarity to the needle? or an electric current in the galvanic battery, and that this current, when applied to the nerves, produces effects similar to those claimed for the nervo-vital fluid?—that when the involuntary nerves which lead to the digestive organs are tied off, and the course of this fluid impeded, digestion ceases? and that it can be restored by introducing a galvanic current to supply the place of this fluid?—Can he deny that polarity is given to the needle by the manipulations of Mesmerism, as certainly as by the Galvanic battery, the stroke of the thunderbolt, or the touch of the load-stone?—that a bar of iron or steel, which has remained for a long time in a perpendicular position, with one end on the earth, obtains polarity by the unvarying laws of this same fluid which pervades all space? * These are facts established by our most learned and scientific men, and which not even *a priest* dare dispute, if he has any regard for his reputation in science.

If the same effects are elicited from these various sources, we would in candor ask, if it does not prove as conclusively that there is a similarity in the various causes, as that like causes produce like effects? Hence, we arrive at the unavoidable conclusion, not only that this fluid does exist, but that it is identical with Galvanism, Magnetism, and Electricity, and that they are the same principle, variously modified by the different mediums through which they are manifested. A chain of proof is thus formed from which no link can be severed, until we are prepared to pronounce men who stand, as the polar star, to guide us in scientific investigation, visionary theorists and brain-cracked philosophers. If human magnetism is attributed to the devil, then the operations of the galvanic battery, the lightning's flash, and the thunder which utters His voice, and the needle which guides the mariner amid the trackless waste of waters, are also the work of Satanic agency. The position assumed by "A Priest" tends to ridicule and contempt, if not to the more serious charge of blaspheming the Architect of the universe, the author and supporter of the harmonious, though complex, laws by which it is governed. But why reason with men who write for selfish purposes, and not for truth? The following lines, by Miss Anna Savage, are so appropriate, that we cannot refrain from quoting them for the especial benefit of those who are so very susceptible of Satanic influences. J. F. S.

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* This can be proved by a very simple experiment.—Take a fire shovel or poker which has been in use for a long time; tie a small thread in the middle, so that it will hang on a balance, and suspend it in a room where the motion of the air will not affect it, and it will settle north and south, with that which was the lower end pointing north. This simple and satisfactory experiment is within the reach of every one.

ON HEARING MESMERISM CALLED IMPIOUS.

Call not the gift unholy; 'tis a fair—a precious thing,
That God hath granted to our hands for gentlest minist'ring.
Did Mercy ever stoop to bless with dark unearthly spell?
Could impious power whisper peace, the soul's deep throes to quell?
Would Evil seek to work but good,—to lull the burning brain,
And linger in some scene of wo, beside the bed of pain;
To throw upon the o'erfraught heart the blessing of repose,—
Untiring watch the eye of care in healing slumber close,—
And as the agony of grief fell 'neath the Spirit's will,
O'er the wild billows of despair breathe tenderly—be still?
Speak gently of the new-born gift, restrain the scoff and sneer,
And think how much we may not learn is yet around us here;
What paths there are where *Faith* must lead, that Knowledge cannot share,
Though still we tread the devious way, and feel that Truth is *there.*
Say, is the world so full of joy,—hath each so fair a lot,
That we should scorn one bounteons gift, and, scorning, use it not,
Because the finite thought of man grasps not its hidden source?
Do we reject the stream, because we cannot track its course?
Hath Nature, then, no mystic law we seek in vain to scan?
Can man, the master-piece of God, trace the unerring plan
That places o'er the restless sea the bounds it cannot pass;
That gives the fragrance to the flower, the "glory to the grass?"
Oh! Life, with all its fitful gleams, hath sorrow for its dower,
And with the wrung heart dwell the pang and many a weary hour;
Hail, then, with gladness, what may soothe the aching brain to rest;
And call not impious that which brings a blessing and is blest.
The gladdened soul re-echoes praise where'er this power hath been,
And what in mercy God doth give, O, "call not thou unclean?" *

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* "God hath showed me that I should not call any man common or *unclean.*"

THE

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PROGRESS OF SOCIETY.

Did *etherial* matter at one time constitute the universe? — and did that *etherial* matter possess within itself the power of condensing those *etherial* particles into gross and tangible substances? Did all nature as we now behold it, emerge from this *etherial* or chaotic state instantly? — or was it progressively developed? Was it first aroused by the internal action of its own *forces* from a latent to a sensible state?—and when it thus became sensible, was it light? — and was light condensed into atmosphere? — and was this atmosphere gradually condensed into water? — and by means of light acting on water, was it rendered turbid — and therefore competent to produce animalcula? Did the decay of animalcula produce earth? — and did earth, light, and water, — these three in one, possess the power of giving birth to vegetation? Did the earth continue to solidify, and improve in form and temperature? and did its appendages, the vegetable and animal kingdoms, improve and keep pace with the earth? Is the same cause still in action which commenced the existence of tangible matter and sentient beings? — and if so, is it still continuing to improve — tending to greater perfection?

These are grave questions, and require some philosophical research to come at any thing like definite and philosophical conclusions. But such is the nature of mind, that it moves on from one degree of perfection to another, without ever exhausting the illimitable resources of nature's God; any more than the dial which marks the time, will exhaust the hours of eternity! We might proceed with these reflections — we might investigate those grave questions, and draw conclusions, from observations based on geological and chemical facts. But to be plain, our mind reels at the thought of plunging into the boundless schemes of creation! We feel like we were standing on a point, suspended in the midst of immensity, from which we dare not move, least we become engulfed in nothingness!

We cannot do better, in the continuation of this subject, than quote the following able article from the Odd Fellows Covenant:

By that germ of reason which the Almighty implanted in man he is enabled to accomplish wonders and makes an era memorable for its inventions and improvements. Every year we hear of some new discoveries or improvements either in machinery or in some department of the arts and sciences. New subjects are brought before the people for their consideration, started afloat by the reasoning soul — the inspiration of the Almighty.

The first man must have been dependent on the spontaneous fruits of the earth. Previous to that knowledge — which is the slow acquirement of time and experience — man, as our first parents are represented to have done, could only pluck and eat, — neither his intellectual capacity nor physical abilities, independent of the former, were sufficient to enable him to accomplish more than this simple and natural action. The next generation took another or the second step in the progressive ladder. They tilled the earth and kept flocks and herds, on whose milk and whose flesh they might feed, and with whose skins they might clothe themselves. But to accomplish all this it was indispensably necessary to have machinery, consequently a knowledge of this fact prompted his wisdom and intelligence to construct machines as auxiliaries in doing that which they desired. Wood and other materials, together with the sinews of animals, were suggested to him and were accordingly used. Hence the invention of the spade, &c. The art of hunting was next practised to a considerable degree, and in order for him to succeed in this new business it was necessary for him to have weapons of offence — the spear, the arrow and the knife were suggested to him and also used.

The age arrived when the discovery of iron was made and the process of reducing ore into metal, and the metal into tools. This was a wonderful achievement of a rude age, and the great omnipotent instrument of the advancement of mankind. It seems to the writer of this, that at this or the present age, iron is the right hand of reason, or the pillar of strength in the great edifice of civilization. Without the aid of this great auxiliary, we should be thousands of years behind the present advancement of science. The use of this article was the greatest discovery, or the most important one, that was ever made — for the simple reason that it has been the great instrument of the developement of the mechanical powers of nature.

The art of cultivation progressed as time passed off; next to this came the means of transportation. In olden times it was common for the sheaf of wheat to be carried home by persons, but now we see a very different state of things, the wagons with tons of burthen are seen winding their way along the ridges or sides of mountains, or we see the long train of cars, filled with the inhabitants of a country many miles distant, and tons upon tons of burthen, winding in a flying gate along the little ravines or valleys to some destined point, where they arrive in a few hours — to have accomplished the same distance a half century since it would have required weeks! I have not time nor space to even take a railroad glance at the progress of science and the improvements in learning in their various departments. The wonderful achievements which the intellectual faculties of man have accomplished are more easily seen than expressed. The invention of steam and its application to machinery, has advanced the arts and sciences too far ahead for a graphic computation. The names of Fitch, Fulton and others, who have by their ingenuity contributed so much in accomplishing this wonderful and grand desideratum,are engraved in golden capitals upon the temple of fame. By the application of steam to mechanics, facilities in travelling are enhanced so far that we are not able to enumerate the per cent. In a few days we can now travel from Maine to Iowa, —through the central route — a distance of between two and three thousand miles, and nearly the whole distance by steam. Europe and America are so close together at this day that we might call them like joint tenants of the same freehold. These wonderful achievements in our country create in an adamantine heart a pride for his nation's honor and fame.

The most hasty survey of the progress of the human race in the various species of improvement is highly gratifying to every one who possesses the spirit of philanthropy. It gladdens our hearts to see that the unborn energies of humanity are ever struggling onward in the peaceful career of invention and enlightenment. Like a mighty river going to mingle in the sea, the great currents of humanity are calm and deep. You may stand upon the shore and see no apparent motion, but it is clear to the eye of reason — there is no stagnation, no reflux from the mighty mass of waters. You and I and many others may go down to the margin and dip our hands into the water and feel no current — nay, we may plunge in and bathe for hours and believe that it is but a stagnant lake. But let us look beyond our own sensations, look at yonder bark floating amid the stream—yesterday she was not there, for she had not arrived — to-morrow she will not be there, for she will have passed on. Where is she this morning? Where will she be this evening? Her evening is beyond her morning station. Her movement is invisible to the eye of sense, but to the eye of reason it is clear, and but more sure since it is slow and governed by the great laws — the general movement. Such is the progress of society. Look at the science of medicine as it now stands, and compare its present condition with that of a period just elapsed, when patients in fever were oppressed with hot and heavy clothing and deprived of fresh air and cool water, for which nature imperatively called. Look at the state of public opinion from century to century, and see the undoubted evidences of progress.

Look at the most civilized portion of the globe — the residence of the Caucassian race. But two centuries ago men and women were condemned to death for witchcraft — now — who would dare even to avow a belief in that exploded superstition. The *divine right of kings*, which was then the practical doctrine enforced at the point of the bayonet, is now suspended by the divine rights of man, which have been proclaimed aloud, and which will yet be enforced in spite of all the legions which can be arrayed by governmental craft against the people. Look at that period when the small pox ravaged the earth unchecked, which has been stayed by the immortal discovery of Jenners. Look at that recent period when the flowing bowl was the vehicle of death to thousands. We can scarcely speak in the past tense of the scourge of intemperance from which we are just escaping. Public opinion formerly sanctioned those sensual indulgences which kept in society this terrific scourge, corrupting the morals, ruining the domestic happiness, wasting property, destroying the constitutions of thousands, or rather millions of our fellow-beings. It was truly a great step in progress when a higher tone of public sentiment was created and it was determined to crush this mighty evil by the simple means of exerting a little self-denial and abstaining from the social use of intoxicating drinks. If there were no other fact than this in the history of man to encourage our hopes of his progressive improvement, we might still believe from this one fact, that the destruction of so formidable an evil would not repose until still greater works had been accomplished.

A power which exists and has been brought into action will not be quelled. The physical and mental energy which converts the wilderness into fields and gardens, does not cease until it has built up the rich and crowded city. The mechanical talent which constructed the spade and plough has made a thousand other inventions. It has given the steam engine, the spinning and weaving machines, and in so doing it has placed a sceptre in our hands to command the elements, but it is still at work as actively as ever, and every year man approaches nearer and nearer to absolute dominion over the globe which has been given him to possess, to govern and to enjoy. If progress then be the law of humanity — if all the arts and sciences and means of enjoyment or improvement are undergoing daily increase, who shall predict the termination of that stream of which he has just seen the beginning? The stream of science and literature has just emerged from the superincumbent darkness and barbarism of the ante-feudal days, or strictly speaking, from the deep darkness which preceded Egyptian and Grecian civilization—and like a fountain from a subterraneous depth, it has, in its brief and irregular course, gradually become a wider and deeper stream, receiving accession on every hand, and beginning to give promise of what it will be hereafter — its depth and its power. But that it will yet be a totally different stream, and will end far away from its original source, we are authorized by all analogy to believe. Whatever may be the grand cycle of human destiny, the events which have yet been developed are barely sufficient to inform us that it is beyond our calculation. In the sweep of the mighty circle of which we are a part, a thousand years would scarcely give us knowledge of its course or proportion. Let the cold and skeptical philosopher limit his views to his own generation, and believe the world is stationary because he does not feel its motion, — he may even sometimes be startled by events which break in before the tenor of his own experience for which he is totally unprepared. He sees not the shadows of coming events and the revolution is upon him before he has ceased to wonder what were the signs of the times. But he who observes the progress of man is not astonished, for he sees that even now the springs of mighty movements lie in the nature of man, and wait their time to burst forth in startling deeds. Whether a revolution in science or government, he is well prepared to welcome its arrival. To him the French revolution was a long expected event. The American declaration of independence was a natural and gratifying end to the colonial. The discoveries of Fulton, Arkwright and Duquesne were the happy realization of what he had long hoped to witness. Believing that this is the true spirit of philosophy — ever hopeful — ever ready to advance, we have no backwardness in hailing the advent of any improvement. There are many desiderata yet to be attained, and when the invention or discovery for which we hope is brought forward, is it not our duty to give it a ready welcome? That a great mass of philosophy and science is yet to be given in from the boundless stores of nature, we cannot for a moment doubt, when the philosopher comes with his original ideas and sterling facts, we are ready to meet him at the threshold with a cordial greeting and cry aloud — *let him be heard*, LET HIM BE HEARD — NOW, HERE — THIS IS THE PROPER PLACE. Let him not be driven by opposition and contumely from the sight of his fellow-men — let him not be compelled to look to posterity for an audience. Let him speak to his own generation, and let each generation be ready to hear and receive the knowledge which its more gifted ones obtain.

[*To be Continued.*]

MESMERISM IN ST. LOUIS.

A feeble effort was made to introduce the subject of Mesmerism in St. Louis, some five or six years since; but from the want of ability, and the lack of knowledge of the subject, the individual who made this feeble effort, failed to even elicit inquiry, or attract attention. But as is the case with almost every new subject brought before the public, the failure was attributed to the science, rather than to its advocate. Dr. Boynton may be said to have been the first to bring this subject into general notice in this city, in a course of lectures with experiments, at Concert Hall. As a general thing, it was looked upon with wonder and incredulity; still, some were convinced of the reality of the phenomena. It, to say the least, attracted sufficient attention and interest, to cause Dr. McDowell, with his characteristic shrewdness in seizing every possible hobby, by which to make himself conspicuous as a *great* man, to come out in lectures in opposition. We will not inflict upon our readers the vulgar wit and bombast of the Doctor's objections; but simply state, that we then (at that time being a disbeliever) considered as satisfactory and unanswerable, his position, in relation to the identity of Electricity, Magnetism and Galvanism, on which Dr. Boynton had founded his theory; which he totally denied, and quoted Dr. Franklin, and other scientific men of reputation, to support him in his position. But circumstances which have since transpired, prove, that he was not honest in this opposition, for last winter, in his course of lectures in the Centenary Church, he undertook to prove that not only Galvanism, Magnetism and Electricity were identical, but also that, in all probability, caloric and light were a modification of the same principle, and that he had known this fact for fifteen years (?) We regret that the Doctor had not laid claim to these important discoveries at an earlier day, that on his brow might have twined the laurel, and on him devolved the honor, of so important a discovery. But alas! by the injustice of the world, and the blindness of the fickle goddess who confers riches and honors, we are denied the privilege of boasting, that the discovery was made by a fellow-townsman, or a citizen of the West, or even of the United States.

Dr. Underhill was its next advocate; his lectures were well received, and a class was formed to investigate, and become acquainted with the subject, all of whom became converts to this new and wonderful science, and the general impression was favorable. Professor De Bonville immediately followed. It soon became evident that *money* was his object, rather than advocacy of the cause. In order to keep up that excitement in the community which was necessary for the accomplishment of his purpose, he enshrouded the subject with a kind of mystery and necromancy, which excited the wonder and marvelousness of the unthinking; while it disgusted the well-informed, and cooled the ardor of its friends. His course produced an unfavorable impression, which required much time and labor to remove. In fact, Mesmerism has received more injury from its would-be friends, than its enemies. From this time the public appeared to have lost sight of the subject; it had a few firm friends, who in their own private circles advocated its truth, and used its healing powers, to relieve "those ills which flesh is heir to." Last winter Messrs. Hedges & Ellet again brought the subject before the public. Having experienced its benefits in their own persons, and by observation in those of others, they prosecuted their undertaking with that energy which its importance led them to believe it deserved; in fact, their enthusiasm led them to commit inadvertencies which the interested enemies of the science wielded skilfully against them. They made no pretention to scientific knowledge, nor attempted to account for its effects, but appealed directly to facts, as a friend of ours, formerly a skeptic, observed, "that he refused every evidence, until he had it effectually pawed into him; — he would not yield the point, until Mr. Ellet, through its influence, fastened him in his chair, and would not allow him to move, until he acknowledged its truth.

By their indomitable perseverance, they succeeded in effectually arousing the community to investigate, until, as was facetiously remarked by our friend, Dr. McDowell, "There was nothing but paw, paw, paw, from one end of the city to the other." Finally, they succeeded in pawing up the indignation of the Doctor, and he again came out in a course of lectures, during which he acknowledged the effects of Mesmerism, and came to the conclusion that, as it to him was inexplicable, it must, of consequence, be a humbug; or, in other words, that any thing beyond the comprehension of *his* gigantic intellect, must be beyond the precincts of philosophic research, and, as a matter of course, unworthy of investigation by a candid and intelligent community. A *sage* conclusion of a *great* man! Who *dare* gainsay it?

The general course of the city papers has been neutral on the subject: the majority acknowledging that they had not investigated the subject, and consequently were not prepared to give an opinion. The Organ was the only paper that took a decided stand against Mesmerism, without the magnanimity to investigate the theory, or the honesty to give the facts, — made it a target at which to direct its *characteristic*, *pointless* sarcasms, vulgar wit, and low billingsgate abuse. We willingly yield them the laurels they have won. "Sufficient unto the day is the evil thereof."

The Reveille took a decided stand in its favor. We would not say it from the prejudicial notice which it gave our first number, but from a sense of justice, that it cannot receive too much credit for the candor of its course, and the ability with which it has repelled the vulgar abuse and unwarranted attacks which this much abused science has had heaped upon it by those who are *bigoted through interest, and ignorant by design.* To the biting sarcasm and stubborn facts wielded by the able editor of that journal, may be attributed the total silence, at least in public, of the opponents of Mesmerism. Quietly and unostentatiously, it is working way in the community, with all the certainty and potency of truth. As well might the crowned heads attempt to stay the onward course of Liberty, and the universal rights of man, which are now sweeping over the earth, and levelling them with their fellows, as check the onward course of this heaven-born gift, which has only to be applied according to the design of the benevolent donor, to become a universal blessing to mankind.

J. F. S.

MESMERISM AND THE DEVIL.

We feel disposed to call the attention of our readers, once more, to the article on Mesmerism, signed "A Priest."

We give the following quotation from that quaint article, upon which we design making a few comments:—

"Hell has opposed the Holy Spirit its spirit of error; to the Gospel its gospel of heresy; to the Apostolate its apostolate; to the Miracles its illusions. It has, like the Church of Jesus Christ, its apostles, its doctors, its prophets, its pastors, its doctrine, its devotees, and even its heroes of crime and impiety."

Mesmerism, then, is like the Church of Jesus Christ; therefore, the Church of Jesus Christ is like Mesmerism! To what other conclusion can we come. We find a complete parallel drawn between the two! And what are the arguments and conclusions drawn by this sapient reasoner? Do they not as effectually prove the Christian religion tinctured with "*Satanic agency*," as the science of Mesmerism? The conclusion of "A Priest" is this: "Ye shall know the tree by its fruit." Hence, Mesmerism is of "*Satanic agency*" because some bad men have been engaged in its operations. We may, for the sake of brevity, throw the argument into a syllogistic form, and see what it will amount to. Every thing which ha any bad men connected with it, and consequently liable to produce bad results, is of "*Satanic agency.*" Mesmerism has some bad men connected with it, and in bad hands may be abused; therefore Mesmerism is of "*Satanic agency!*" But "A Priest," in the same article, says—"There has never been attempted a single important work for the salvation of the world, which has not had its counterpart for perdition"—Therefore, we must conclude, reasoning *a priori*, that there never has been an evil design, which has not had its counterpart for good. The proposition may then be stated thus: Mesmerism has some good men engaged in its operations, and in such hands it is productive of much good; therefore, Mesmerism is of God, the author of all good.

Would the same arguments apply to the Christian religion? Why not? —The opinion of a "A Priest," notwithstanding, probably, to the contrary. But, shall we say that the Christian religion is of "*Satanic agency,*" because some bad men, through selfish motives, have become connected with the Church, and through whom evil has resulted! Monstrous argument! Impious conclusion! Let "A Priest" put *his* finger upon any thing with which fallible man has to do, which is not liable to abuse, and we will then surrender the point, that, not only Mesmerism, and *his* Holy Catholic religion, but every thing else, has been subservient to selfish purposes, and is, consequently, of "*Satanic agency!*"

"Incontestably," *Satanic agency* "is an extraordinary instrument, and for an exciting motive," is far more effectual, with one class of minds, than common sense!

Truly, "*Satanic agency*" is a wholesale actor in all work, most particularly in every case of necessity. Numberless are the problems solved by a reference to this potent wand!

The whole world's a stage, and one and the same interpretation, "plays in its time many parts."

"*Satanic agency*" once came forward in the character of an old woman, removing diseases by means of senseless words, accompanied with manipulations—*passes of the hand!* Again it appeared in the character of a Jesuit, scowling darkly around, curing chills and fever with cinchona! His Satanic Majesty appears again, with his powerful and omnipresent "*agency,*" in the character of Lady Wortley Montague, importing inoculation from Turkey, arresting the fearful ravages of the small-pox! Again "*Satanic agency*" presents itself in the character of Dr. Jenner, consulting the College of Physicians, and saving myriads of infants through the instrumentality of vaccination! "*Satanic agency*" again presents itself in the character of Dr. Faust, publishing the *Bible* in beautiful printed volumes, reducing the price from *six hundred* to *thirty* crowns per copy—thus placing the *Bible*, the embodiment of the Christian religion, within the reach of all! "At this people first became astonished, and then alarmed, at the mysterious number, cheapness and uniformity of his Bibles. It was soon rumored that he was a magician, and in league with the Devil! He was accused of magic, and his lodgings searched by the officers of the police. Several copies of the Bible were found, together with some red ink, which was pronounced to be the blood of Dr. Faust! Of course this confederate of the Devil's had to flee for his life, avoiding the inevitable fate which in those superstitious days was reserved for all who were reported to be necromancers!

Credulity caught the dark rumor, and the story of the Devil and Dr. Faust, translated into all the European languages, and circulated by the harmless necromancy of his invention, in various versions, bristled the hair of the populace over all Europe. The substance of the most commonly received version seems to have been this: That Faust entered into a compact with the Devil that the latter should aid the former to produce books, as many and as rapidly as the former could sell, in consideration, after a specified time, that the Spirit of Darkness should possess Faust, body and soul; that the contract on either part being faithfully performed, at the expiration of the stipulated period, Faust paid the consideration of his immense gains by resigning himself to the Devil, who flew away with him into the air, scattering his limbs in all directions as he flew, and carrying his disembodied soul to his own infernal home!!!"

But, to cut short our remarks upon the ridiculous conclusions of "A Priest," it is enough to state that, every new and wonderful discovery which has been made in the arts and sciences, has met with this same calumnious objection; alike degrading to the character of the Author of all things, as well as of those who are so imbecile as to raise an objection requiring arguments to sustain it, which would disprove the hypothesis they wished to enforce!

Hence, we discover that Satan is the hero of a certain class of men who would willingly make themselves appear ignorant, that they might entail ignorance on the mass, and consequently keep them in vile servitude, through the means of this most degraded sophistry; upholding the initiated few, who pretend to teach how to save — what? That which, unfortunately, we fear, from the course they pursue, they do not possess themselves — *a soul!* But, lo and behold! the Devil, when he found he could not overthrow the works of God by any other means, turned Mesmerizer, and performed all the miracles upon which "A Priest" depends for the establishment of his religious tenets: and still further, to show that there is nothing supernatural in relation to their creed, he has accounted for these wonderful effects upon strictly philosophical principles; showing, conclusively, that there is no effect without its rational cause. Verily, this Devil is a wily fellow — wonder if he does not turn priest, cross himself, and preach to the people in Latin? At least, we think him not inferior to a particular order of the Catholics, who, when they found they could not put down Protestantism by the rack, fire and faggot, they turned school masters, and meekly went forth and taught the Protestant children; imbuing the infantile mind with the principles of Catholicism — thus effecting by craft what they could not succeed in by force!!!

PHRENOLOGICAL INVESTIGATIONS.

[*From the London Phreno-Magnet.*]

Dear Sir, — It was with great pleasure that I heard you had commenced a publication on Phreno-Magnetism, considering it myself a subject of great importance to the human race. It is another bright and verdant spot amidst the mazes of human mystery. It affords the opportunity of collecting, concentrating, and disseminating the wonderful discoveries in an important science, which has slept so many ages in obscurity, but which will, ere long, unravel many secrets of man's nature that have puzzled philosophy through so many ages of past history. I am happy to see the time when a power is found to prove indisputably the invaluable principles of Phrenology, and hope there will not be wanting noble minds and generous hearts to transmit them to the community at large.

Considering that every new evidence bears testimony of its truths, and having been often amused and instructed by its wonders, I take the opportunity of transmitting to you an account of my own experiments, in the hope they will add another weight to the scale of substantiation.

When first I had the pleasure of producing the Magnetic sleep, I had never seen any thing of the kind. I produced it first on a youth of seventeen years, in fifteen minutes, by passes over the head. I catalepsised the limbs by drawing my hand down them, and restored them by the reverse. I made passes towards him, and it attracted him — I threw my hands from me, and it repulsed him. I then tried the cerebral organ of Imitation with Language, and its manifestations were clear. I then caused a number of persons to link hands, and placed one of my own hands on the stomach and joined the chain of persons with the other. The endmost person of the chain spoke something on the nuckle of his finger, so low that the one next to him could not hear him, and the magnetized patient repeated every word correctly, notwithstanding the number of persons intervening. Since then, I have magnetized many, from the ages of four to sixty, and have tested all the organs originally published by Sunderland, Buchannan, yourself, and others, besides a number which I have found myself, in all amounting to near two hundred. I have likewise satisfied myself of your following propositions: — First, that there is no species of thought, feeling, or action which is not the manifestation of a distinct organ. Second, that all the organs exist in groups, each group being an aggregation of functions. Third, that each organ has a contiguous negative organ. And for the illustration of these principles, I will furnish to you an account of the manifestations of all the organs I have become acquainted with, as nearly as the nature of the case will admit, in the order observed on the common busts, passing No. 1 (Amativeness) with brevity from motives of delicacy. This organ has three distinct divisions and their negatives; — one entirely sensual — one for pure, elevated, connubial affection — and one for sensual admiration, with which are associated physical repugnance, sensual dislike and modesty.

Immediately above the occipital spine is the Philoprogenitive group. The manifestation of its components is clear and distinct. In one we see the patients imagine they are nursing children, and playfully rocking and kissing, and (with Language) blessing them. Near this is the organ which gives a dislike to children. When acted on, we observe the turning up of the nose and the curl of the lip. If Language be excited in conjunction, they repeat with contempt, "Take your brats away," &c. Another faculty in this region is Love of Pets. When excited, the patients commence as if hugging something to the bosom. If asked what they have got, they will tell you something they are very fond of, and imagine they have got it in their bosom. It is this organ that gives fondness for domestic animals. The negative organ to this gives just the reverse manifestation.

On one side these, I find an organ of *Aquativeness*. When excited it gives a disposition for the water. The patient imagines he is on the banks of rivers, and prepares to jump in, &c. It appears to possess great Magnetic sympathy with the mechanical organs of swimming, &c.; for it not only gives a disposition for the water, but to perform various aquatic exercises. Near to this is the negative organ, which gives a repugnance to the water, &c. [Tested in one case only.]

Near to Philoprogenitiveness is the organ of FILIAL LOVE. This organ developes itself in the most tender and affectionate manner. To see, with Language, the subject imagine the presence of his mother, and take some one affectionately by the hand and look tenderly and wistfully in the face, and repeat *dear mother* in the most pathetic and affectionate tones, is a manifestation so touching as almost to move an observer to tears. On one side is the negative organ, which gives a carelessness with regard to parents.

Near this is an organ for CHILDISHNESS. When acted on, it throws the patient into a complete childish state. It is almost impossible for me to describe the pitiable change which is created in a moment. To see an upgrown person so wonderfully altered is astonishing. So soon as acted on, you may observe the relaxation of the features — the dropping of the arms — the lolling of the head — the dimness of the eye — and the childish tone of voice and general simplicity of manner. The patient slips from the chair on the floor, and commences playing with any thing within reach. To questions in such a case, "playthings" is all I have been able to obtain in reply.

Approximate to the foregoing is the organ of MANLINESS. If this organ be excited, the patient rises with a firm and manly action, and in appearance and deportment, has all the noble dignity of *man*. Above, is the organ of *Patriotism*. This organ gives a *noble spirit of freedom* and love of country. With Language, "I will free them;" which is delivered in such a manly spirit as can only be truly pictured by nature herself. [I have not as yet clearly detected the negative of this.]

Near to Patriotism is the organ of INHABITIVENESS. When this is excited, the individual feels a propensity for home. With Language, "I will go home." With Tune, "Home, sweet home," &c. One modification gives a disposition to sit still where they are, then say they are at home.

Approximate to the organ of Inhabitiveness is the organ for RAMBLING. When excited, the individual gets up and marches off. If asked where are you going? he replies, "going a walking;" "I will not stay at home; you would always have me at home," &c.

Above is the organ of CONCENTRATIVENESS. When this organ is excited, the individual jumps up with a firm step, and concentrates his physical and mental energy on one object; and it is impossible to distract his attention. Thus much for the present.

I am, Sir, yours respectfully,

JOHN SPURR.

Hermitage-lane, Sheffield, Feb. 11th, 1843.

REMARKABLE CASES OF SUPERSENTIENCE, AT GLASGOW.

[*From the London Phreno-Magnet.*]

A VISIT TO A CLAIRVOYANT PATIENT.

By the kindness of a medical friend, the writer of the following statement was one evening last week admitted to visit and examine a case of mesmeric influence; as the phenomena attending it were of a truly singular nature, and as the case itself can be very well authenticated, some account of what was witnessed may perhaps lead to a more careful attention being paid by scientific men to mesmerism.

The patient, who is a lively intelligent girl of apparently about twenty years of age, has been in delicate health for a long period, and having been latterly subject to fits of a cataleptic nature, was considered by her medical attendants to be a fit subject for the magnetic influence. On entering the apartment on the evening referred to, she was already in the state of trance, but was awakened (by the operator rubbing her forehead with both his hands) in order that we might see and converse with her in her usual state. She was again thrown into the sleep by the operator holding her hands and looking steadfastly in her face for about a minute, when a deep drawn sigh announced that the change was effected. Her head sank back upon a pillow placed for its reception, while the expression of the face and the position of the whole body became all at once highly characteristic of the most perfect repose. The eyes remained slightly open as in somnambulism, but this is said to be only the case when the patient is mesmerized more than once at a sitting. A few passes down the head and face closed the eyes; and in this condition a hand or limb placed in any position, however awkward in her usual condition, remained immoveable, which state was described as that of pliant catalepsy. A few passes down any particular limb produced what the operator styled a rigid catalepsy, in which the muscles appeared distended by some powerful nervous influence. On inquiry, we were informed that her pulse, which, in ordinary cases, beats quickly, falls regularly about twenty beats while in this condition. Her eyes were now bandaged so as to prevent the semblance of collusion or conspiracy, and a loud noise having been unexpectedly made by striking two books together, showed that she continued insensible to external influence of such a nature. At the same time a cord fifteen yards long having been fastened to her right hand, and carried to an adjoining apartment, and from thence down a stair to the court below, the doors being all shut, served as a means of communication between the patient and one of the medical gentlemen. Orders or commands, written by spectators in the apartment on a slip of paper, and handed to the latter, were whispered by him upon his end of the cord, and promptly replied to by her in the performance of the commands. Conversations held with her, by means of the operator whispering upon the back or palm of her hand, elicited the facts that she was possessed of a double consciousness, answering to a different name from that given in her usual condition, describing her situation as one of great mental quietude and happiness, and looking upon herself as a totally different individual from what she really is. The operator continuing to hold her hands, one of the spectators slipped behind him and pulled his hair, upon which the patient called out that some one pulled her hair; when he was pinched, she complained of being pinched in the same place, although she was in her own person quite insensible to pain. When the operator held her hands, and imitated the motion of swallowing, the muscles of her throat and mouth assumed the appearance of the same action. The effect of such experiments impressed upon our minds the fact of a community of sensation.

The room was now completely darkened, and the fire covered up with a large board, the interstices being filled with cloths, to prevent a single ray of light. In this state she was asked to describe the appearance of the room, and the position of the different parties present, which she did very minutely; and one gentleman present described his sensation as almost overpowering, when, in a whisper (with her eyes still bandaged,) she described the altered position in which he placed himself to test her powers.

It appears that this power of clairvoyance is greater in proportion to the absence of light.

One of the strangers present, having been requested to place himself in communication with the patient by holding her hands, she described accurately and anatomically the appearance of his system — asserting, in answer to the questions of the mesmerizer, that the stranger was in perfect health; and on being pressed by a physician present to examine the stomach minutely, declared, after a few seconds, that it was affected in a very slight degree, and had been so affected for about two days.

This gentleman afterwards assured the company that such was literally the fact, but that the indisposition was so trifling that he did not consider it necessary to be mentioned previously. What renders this incident the more striking is, that when the physician pressed the inquiry, he imagined that a different spectator (the room being dark) was under examination, and for whom he had prescribed for indigestion and bilious headache only a short time before.

In short, the experiments, of which only the leading ones can be detailed in a paper of this kind, were of such a nature and so conducted as to leave us no alternative — unless we were inclined to doubt the evidence of our senses — but to believe that the science is entitled at the least to a proper share of attention. Experiments were tried to show that it might be possible to lead the patient to visit in imagination, and to describe, places and persons whom she had not previously seen or conversed with — for instance, houses, streets, and even the interior of public buildings; which we were assured, by the father, mother, and brother of the girl, she was in her usual state utterly ignorant of. Whatever explanation the scientific may offer of these phenomena, enough has been seen by the writer to satisfy him that mesmerism presents many features well worthy of investigation. The able portion of the medical faculty are, unfortunately, for the most part, so busily engaged in the active duties of their profession as to be unable to find leasure to prosecute such studies; while such an investigation carried on by non-professional parties is exceedingly likely to bring down upon their heads the imputation of tampering with the credulity of mankind.

Since the commencement of the mesmeric treatment, the patient's symptoms have gradually and steadily abated, and, what is very curious, they have done so exactly in the reverse order of their accession. She has now been for three weeks entirely free from any return of the fits, while her health and spirits daily improve. The patient declares herself to be better than she has been for many years, and her medical attendants feel asssured she will be ultimately and permanently cured.

It is to be hoped that a complete account of the case, in a more scientific form, will, by-and-bye, be laid before the public.

PHENOMENA OF THE BRAIN.

One of the most inconceivable things in the nature of the brain is, that the organ of sensation should itself be insensible. To cut the brain gives no pain, yet in the brain alone resides the power of feeling pain in any other part of the body. If the nerve which leads to it, from the injured part, be divided, we become, instantly, unconscious of suffering. It is only by communication with the brain that any kind of sensation is produced; yet the organ itself is insensible. But there is a circumstance more wonderful still. The brain itself may be removed, may be cut away down to the *corpus calosum*, without destroying life. The animal lives and performs all those functions which are necessary to simple vitality, but has no longer a mind; it cannot think or feel; it requires that the food should be pushed into its stomach; once there, it is digested, and the animal will even thrive and grow fat. We infer, therefore, that the part of the brain called the convolutions, is simply intended for the exercise of the intellect and faculties, whether of the low degree, called instinct, or of that exalted kind bestowed on man, the gift of reason.

MEDICAL.

CASES.

Mr. B———, of this city, was rendered almost incompetent to attend to his business, through deafness. He had been gradually losing his hearing for some fifteen years, caused by severe ear-ache, attended with discharges of matter. He had tried almost every thing, but found no relief, and it became evident to him, that he soon must loose his hearing altogether, unless he should speedily meet with relief. This gentleman called at our office, and inquired if we thought Mesmerism would be any advantage in his case? We replied, if it did no good, it could do no harm; upon which he desired we should make an effort. We then advised him to syringe out his ears thoroughly, with Castile soap and water every evening, after which, he should use one drop of British oil in each ear, call at the office, and get Mesmerized once a-day. This course was strictly adhered to. At the end of three weeks he left the city, observing that "he would not have begrudged one hundred dollars, as he considered himself cured of his deafness." When we first undertook his case, the voice had to be raised to the highest pitch, in order to make him hear, and understand what was said. When he left, he could hear as well as persons usually do, by paying strict attention. The manner in which we remove deafness, is difficult to explain — it requires a practical illustration.

We give the following extract of a letter, from our friend Thomas H. Estis, of Pleasant Hill, Clay county, Mo., as the respectability of the source from which it comes, must give it due weight with the public.

"As it respects Magnetism, I am convinced of its good effects in a great many cases in our family. One of my negro women was troubled with rheumatic pains. I magnetized her, and she has never complained of them since, it being over twelve months ago.

"Another was troubled with a bleeding at the nose, and she has been cured in the same way. Yet there are a great many who laugh at it, and do not believe in it at all — notwithstanding, it will one day be of great benefit to the human family."

We willingly give place in our columns, to the following interesting communication. We would be pleased to have all the friends of the cause add their testimony, thus forming a breastwork of *facts*, which will bid defiance to all assailants.

Messrs. Editors: — Having become satisfied, from practical experiments among my friends, of the power of Mesmerism in relieving many who are suffering from diseases, which the medical faculty have pronounced incurable, I consider it a duty that I owe the public, to communicate those facts, not that I wish to claim any credit for myself, but from a sympathy that I feel for those who are suffering under similar complaints. If you consider the following case of sufficient importance, you are at liberty to use it, in any manner that you may think best calculated to advance this great and benevolent cause.

Mrs. J———, wife of Dr. R. A. J. of this city, was afflicted with a disease of the spine, for a number of years, during which time, in addition to the treatment of her husband, she had consulted some of the most eminent physicians in the country, without obtaining any permanent relief. Her symptoms were, a weakness in the back, and nervous headache, which often terminated in convulsions. Three joints of the spine were so tender that she could not have them touched, even slightly with the fingers, without giving acute pain. A temporary relief was obtained, by the application of tartaric plasters, for producing a counter irritation, which were repeated every few days.

Last December, while attending Messrs. Ellet & Hedges lectures, to witness the experiments before the class, she was persuaded by her friends to undergo an examination by the clairvoyant. It might not be amiss to state, that both she and her husband were, at that time, skeptical on the subject of Mesmerism. The examination was entirely satisfactory. The seat of the disease was pointed out, and the symptoms accurately described, with the assurance that it could be permanently removed by Mesmerism, and the method of procedure was pointed out. The clairvoyant also stated, that she was suffering under an enlargement of the spleen, which had been occasioned from receiving an external injury, which was strictly true. The lady was an entire stranger, to both the mesmerizer and the clairvoyant. Being at that time a member of Dr. J's. family, and wishing also to test the truth of this wonderful science, I proceeded to mesmerize her according to the directions. She found herself improving from the first sitting, until she was entirely relieved, in less than two weeks, of both complaints. The mesmeric sleep was induced at the third sitting. The lady assures me that she is now enjoying better health than she had for the last twelve years previous to the mesmeric treatment.

Yours, &c., J. T. M * * * *

ELECTRICITY APPLIED TO VEGETATION.

Some very interesting experiments have recently been made in the north of Scotland, to test the effects resulting from the application of galvanism to the growth and production of plants, and applied upon an extensive scale. The experiment was tried, says the New York Gazette, upon a portion of a field of barley, which produced at the rate of thirteen quarters and a half to the acre, while the surrounding land, similarly treated in all other respects, produced the usual quantity of five or six quarters to the acre, the *electrical* barley weighing, moreover, two pounds to the bushel more than the other.

The mode in which the fluid is collected and applied, to influence the land, as detailed by the Gazette, is very simple. The field is divided into oblong squares, 70 yards long and 40 wide—containing, therefore, just one acre. At each of the angles of the square, pegs are driven into the ground, and four strong iron wires were attached, communicating with each other, so as to form a square of wire, and sunk three inches below the surface; at two points, directly opposite, in the centre of the *short* sides of the oblong, poles are fixed in the gronnd fifteen feet high, and a wire, communicating with the cross wire beneath the surface, is carried up one of the poles, and along the centre of the square to the other, down which it is conducted, and attached to the cross wire beneath the surface at that point, the square being so formed as to run from north to south, so that this upper wire shall be at right angles with the equator. As a considerable body of electricity is generated in the atmosphere, and travels constantly from east to west, with the motion of the earth, thus electricity is attracted by this upper wire, and communicated to those forming the square under the surface of the ground.

It is suggested, however, that any quantity of electricity can be generated by placing under the ground, at a point in the centre of one of the *longer* sides of the oblong, a bag of charcoal, and plates of zinc at the point directly opposite on the other side, connecting the two by a wire passing over two poles similar to those mentioned in the preceding account, and crossing the longitudinal wire passing from those poles.

The cost at which this application can be made is computed at *one pound* per acre, and it is reckoned to last ten or fifteen years — the wires being carefully taken up and replaced each year.

This discovery, continues the Gazette, is certainly one of the most important of modern days, and would compensate fully for the giving out of Ichaboe, even were poudrette, and other methods of manuring the ground, also exhausted.

POWER TO LIVE OR DIE.

The most singular instance of the power of the will over the functions of the body, and, taken altogether, perhaps the most remarkable case on record, being supported by the testimony of unquestionable authority, is related by Dr. Cheyne, in his "English Malady." It is the case of the Hon. Col. Townsend, who for many years had suffered from an organic disease of the kidneys, by which he was greatly emaciated. He was attended by Dr. Baynard, Dr. Cheyne, and Mr. Skrine; and these gentlemen were sent for one morning to witness a singular phenomenon.—He told them he had observed an *odd sensation*, by which, if he composed himself, he could die or expire when he pleased, and by an effort come to life again. The medical attendants were averse, in his weak state, to witness the experiment; but he insisted upon it, and the following is Dr. Cheyne's account:—"We all three felt his pulse first; it was distinct, though small and thready, and his heart had its usual beating. He composed himself on his back, and lay in a still posture some time; while I held his right hand, Dr. Baynard laid his hand on his heart, and Mr. Skrine held a clean looking-glass to his mouth. I found his pulse sink gradually, till at last I could not feel any by the most exact touch; Dr. Baynard could not feel the least emotion in his heart, nor Mr. Skrine the least soil of breath on the bright mirror which he held to his mouth; then each of us by turns examined his arm, heart, and breath, but we could not, by the nicest scrutiny, discover the least symptom of life in him. We reasoned a long time about this odd appearance as well as we could, and all of us judging it inexplicable and unaccountable, and finding he still continued in that condition, we began to conclude that he had indeed carried the experiment too far, and at last were satisfied that he was actually dead, and were just ready to leave him. This continued about half an hour, by 9 o'clock in the morning, in autumn. As we were going away, we observed some motion about the body, and upon examination found his pulse and the motion of the heart gradually returning; he began to breathe gently and speak softly. We were astonished to the last degree at this unexpected change, and after some further conversation with him, and among ourselves, went away fully satisfied as to all the particulars of this fact, but confounded and puzzled, and not able to form any rational scheme that might account for it. He afterwards called for his attorney, added a codicil to his will, settled legacies on his servants, received the sacrament, and calmnly and composedly expired about five or six o'clock that evening." His body was examined, and all the viscera, with the exception of the right kidney, which was greatly diseased, were found perfectly healthy and natural. This power of the will to live or die at pleasure, is, perhaps, one of the most remarkable phenomena connected with the natural history of the human body. Burton alludes to cases of the same kind, and reports that the celebrated Cordan bragged that he could separate himself from his senses when he pleased. Celsus makes reference to a priest who possessed the same extraordinary power.

ANECDOTE OF A SLEEP WALKER.

During the revolutionary war, there was a gentleman of large property residing in Brooklyn, who was addicted to the habit of walking in his sleep. Panic-struck at the invasion of the enemy, he daily expected that his dwelling would be ransacked and pillaged. Under the influence of these fears, he rose one night, and taking a strong box, which, awake, he never attempted to lift without assistance, he proceeded down stairs, furnished himself with a lantern and spade, and in a deep wooden glen, about a quarter of a mile from his house, he buried his treasure, carefully replacing the sods, so as to create no suspicion of their having been removed. This done, he returned, undressed, and went to bed. Next morning he was the first to discover the absence of the "strong box," without having the slightest remembrance of what had passed. Enraged at its loss, he immediately accused his domestic of the robbery, as no traces of violence were perceptible either on the locks or doors of his house, that could induce him to suspect strangers. Month after month elapsed, and still the mystery was not solved, and his family began to want the necessaries of life without having the means of procuring them. At that period of public calamity, no money could be raised on real estate, and it was at that season of the year when agricultural labors had ceased, which left him no means of earning a support for his family. To augment his misery, his only son lay confined by a violent fever, without any one of those comforts which his situation demanded. The despairing father was strongly affected by this melancholy view of the future; his rest became more frequently broken, and he would often wander from room to room all night, with hurried and unequal steps, as if pursued by an enemy. His wife and daughter, who were accustomed to these nightly wanderings, never attempted to disturb him, unless they were fearful some accident might befall him; in this case it was necessary to employ the most violent means to awaken him, upon which he would exhibit so much fear and distress, that they usually suffered him to recover from the trance, which was succeeded by drowsiness, after which he would sink into light and natural sleep, which generally continued for several hours.

One night, as his daughter was watching at the couch of her sick brother, she heard her father descend the stairs with a quick step, and immediately followed him. She perceived he had dressed himself, and was lighting a lantern at the hearth, after which he unbolted the door and looked out; he then returned to the kitchen, and taking the lantern and spade, left the house. Alarmed at this circumstance, which was not usual—though it sometimes occurred, as above related, without the knowledge of his family—she hastily threw on a cloak and followed him to the wood, trembling with apprehension of she knew not what, both for herself and her father,

Having gained the place where he had three months since buried the box, he set down the lantern so as to reflect strongly upon the spot; he then removed the sods, and striking the spade against its iron cover, he laughed wildly, and exclaimed—"My treasure is safe, and we shall be happy," and shouldering his heavy burden with the strength of a Hercules, he stopped not as before to replace the sods of the earth, but snatching up his lantern, pursued his way directly home, to the joy of his daughter, who could scarcely support herself from the fears she had experienced, which were that he was about to dig his own grave, and either commit suicide, or murder some of his defenceless family. Inexpressible, therefore, was her joy on seeing him ascend the stairs, and place the box in its former recess; after which, as usual, he retired to rest. His wife and daughter, however, were too anxious to sleep themselves: the one sat impatiently watching the dawn of the day, and the other returned to the apartment of her suffering brother, to relieve his mind by the joyful event, and her consequent hope of his immediate recovery.

When the gentleman awoke in the morning, his wife observed the gloom upon his countenance, as he anxiously inquired about the health of his son, and expressed his sorrow at not being able to procure those comforts for his family which were so much needed. Finding him perfectly unconscious of all that had passed the preceding night, she watched the effect which the restoration of the box would have upon his mind; and as she expected, with an astonishment almost amounting to phrenzy, he exclaimed—"Who has done this? whence came the box?" Not until he had listened to the evidence of his daughter, could he be convinced of the possibility of his performing such an act while asleep. Suffice it to say, that now health, peace and competence were once more restored to his dwelling, and the result of this blessing had a very salutary effect upon his mind; and although he still continued his midnight excursions, yet his friends were gratified to find them less frequent than formerly, and his future dreams, also, to judge by appearances, seemed to partake of the mild, serene character of his waking thoughts.

ANECDOTE.

An amusing incident occurred with one of our agents while soliciting subscribers. He called upon an old lady, and inquired if she wished to subscribe for the Magnet; and proceeded to enumerate the various subjects of which it was to treat. She listened very complacently until he mentioned Mesmerism, when she jumped from her chair, exclaiming No! No!! No!!! keep those spells and charms away from here—don't bring those awful books into my house. Then looking him full in the face, while anxiety and alarm were depicted in every feature, and devoutly crossing herself, she inquired—"Are you one of those terrible magnetizers?" When assured he was not, she took a long breath, and added, in a compassionate tone, "Ah, poor dear young man, you have been deceived, you have been led away to do the works of the Devil without knowing it—take my advice, and have nothing more to do with those wicked men, nor those awful books. They got my dear young boy and bewitched him; but I caught them at it. Would you believe it, young man, they had the spell on him, and he wouldn't speak to his dear old mother—'tis true, and then he looked so pale, and sat so still, like as if he was dead. Oh! it's awful to think of, that there should be such doin's in a Christian country. But he is attending church now every day, and I hope by the grace of God he will get over it."

New Discovery in relation to Stone.—It is stated in the Sheffield (Eng.) Mercury, that a scientific gentleman residing at Ipswich, Mr. Frederick Randsome, engineer, has lately discovered a method whereby the hardest stone can be brought into a consistence resembling common putty, so that it can be cut off and moulded into any shape, for useful and ornamental purposes, without altering its general character and appearance; for it becomes as hard, and in some instances even harder, than when subjected to the process. Another peculiarity of the process is, that any color or variety of colors can be imparted to its solid substance, so that an endless variety of shades can be produced, and, as it is capable of being polished, it effectually resists the action of the weather. It can also be used as a cement, and can be bruised over the surface of wood, so as to render it fire-proof.

Mesmerism by no means a Discovery of Yesterday.—Among the chambers of the pyramids, is a chamber of hyeroglyphics devoted to medical subjects; one of which exhibits a patient sitting in a chair, while the operator describes the mesmeric passes, and an attendant waits behind to support the head of the patient when asleep.

THE CHEMIST TO HIS LOVE.

I love thee, Mary, and thou lovest me;
Our mutual flame is like th' affinity
That doth exist between two simple bodies—
I am Potassium to thine oxygen.
'Tis little that the holy marriage vow
Shall shortly make us one. That unity
Is, after all, but metaphysical.
O, would that I, my Mary, were an acid,
A living acid; thou an alkali
Endowed with human sense, that, brought together,
We both might coalesce into one salt.
One homogeneous crystal. O! that thou
Were Carbon, and myself were hydrogen;
We would unite to olefiant gas,
Or common coal, or naphtha. Would to Heaven
That I were Phosphorus and thou wert lime!
And we of Lime composed a Phosphuret.
I'd be content to be sulphuric acid,
So that thou mightest be soda. In that case
We should be Glauber's salt. Wert thou Magnesia
Instead, we'd form the salt that's named from Epsom.
Could'st thou Potassa be, I aquafortus,
Our happy union should that compound form,
Nitrate of Potash—otherwise, saltpetre.
And thus, our several natures sweetly blent,
We'd live and love together, until death
Should decompose the fleshly *tertium quid*,
Leaving our souls to all eternity
Amalgamated. Sweet, thy name is Briggs,
And mine is Johnson. Wherefore should we not
Agree to form a Johnsonate of Briggs?
We will. The day, the happy day, is nigh,
When Johnson shall with beauteous Briggs combine.

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PROGRESS OF SOCIETY.

[*Continued.*]

In noting the principal features of modern progress, nothing has struck us as more capable of guiding and assisting the cause of improvement, than the development of the philosophy of man. Knowing the nature of his powers, we may hereafter train them to better advantage. Understanding his sympathetic relations to his fellow beings, this knowledge may be made tributary to the philosophical arrangements of society and government. Understanding the laws of his constitution, we may arrange the training and physical influences to produce the best development of body and mind. In every way the philosophy of man's constitution will prove an admirable assistance to every plan for the promotion of his happiness. In fact it is as necessary to his prosperity as geometry to building, or astronomy to the navigation of the ocean. We say it is one of the most encouraging things we know, that the science of man has made so rapid a progress within the last fifty years. The numerous improvements and discoveries in the medical science, have done much even to change the rates of mortality in many populous regions, and to disarm the most formidable diseases of their terrors. But the discoveries which have been made in relation to man's constitution as a rational being, have been far more wonderful, and we believe are calculated to have the most powerful effect upon his social progress. First among these, we place the discovries of Dr. Gall, in relation to the brains of man and the animal. We believe it is now pretty generally admitted, that this remarkable man was one of the greatest anatomists of his century, and that his dissections of the human brain have done more to throw light upon its structure than the labor of any other man. But he was also a great phosiologist. His doctrine of the functions of the brain is admired by thousands of the most enlightened and learned men of Europe and America. Those who receive the doctrine of phrenology, with all its details, as entirely accurate, regard him as the author of the most important science that exists, and those who receive only the general principles, distrusting the accuracy of all the details, regard him as a great philosopher. The latter class of persons, who consitute the majority, regard phrenology rather as a philosophical doctrine, or speculation, than a practical rule or exact science. The former regard it as a science of wonderful completeness, considering its sudden growth. I am disposed, upon this subject, to take a medium position, and regard the science of phrenology, as taught by Gall and Spurzheim, as a beautiful discovery, but too incomplete for a full display of its merits. I think that it was a great advance in philosophy to treat the mind of man in different portions of brain, which are considered its organs of manifestation. It was was one of those steps in advance which are decisive. It was crossing the rubicon, and leaving the regions of mere speculation for the open field of physical demonstration and inductive research. There is a French adage, to the effect, that the principal difficulty of any undertaking lies in taking the first step—that accomplished, the rest costs no great effort of the will. So, in the study of the mind, the first great step to take was to connect the mind in some definite manner with the brain. From this the *metaphysicians* shrunk back. The practical *physician*—it was the man of patient physical observation who linked the mind with the brain, and this brought it within our grasp, as a subject of inductive investigation.

This new philosophy, arising from this investigation, throws great light upon every department of anthropology, or morals. The moral philosophy of phrenology would make a subject for a most interesting treatise. The old subjects of inquiry assume an entirely new aspect when illumed by the physiological light of Dr. Gall. The whole edifice of philosphy is re-modelled, and assumes a new aspect, when we recognize the doctrine of the special organs in the brain. For example: it has been debated whether a man could be justly held accountable for his conduct, and whether he was not the creature of a destiny which stamped upon his constitution its controlling passions, and thus determine his fate. Viewing this question as phrenologists, we perceive that man is endowed with native passions, by the peculiar conformation of his brain. The animal appetites, the passions, the intellectual faculties, are bestowed upon different persons in different proportion, and hence it is more difficult for some to pursue a virtuous career than their more fortunately organized companions, in whom the passions and appetites are less imperious. But this does not lead us into a mechanical fatalism; for the same science shows that the different organs endow us with all the passions, and with the moral sentiments which inform us of the proper course, and with a power to judge between different motives, to choose the proper course, and to pursue it with firmness. All men have the moral sentiments, and hence all may be held responsible for pursuing the right course, since they have a constitutional, innate capacity for deeds of virtue. But still it might be affirmed that man was limited by a physical law, in his destiny, and incapable of doing right or avoiding the wrong, his organs strongly inclining in an evil direction. This impression was counteracted, by showing that man was not exactly the creature of his organs, for he can use which ever he prefers, and by using any set of organs, may strengthen them so much as to give them a decided preponderance. The skull and brain change frequently, in the course of life, or the character undergoes a change, and no organ can be long kept active, without producing an excitement, activity, and growth of the part of the brain in which it lies. This excitement becomes habitual, and the growth of the organs increase their powers; hence, we have the power of exercising any faculty, to give a preponderance to that faculty, and an increased development to its organs. We are not, then, controlled by any fixed necessity, determinable by the form of the head, but have the power ourselves of remodelling our own mental structure by perseverance in the proper self-culture. Such is the phrenological view of this question—a view enforced by an appeal to facts, and much more clear and satisfactory than any views derived wholly from abstract reason, and not enforced by physiological considerations. Upon all questions that relate to man, phrenology thus sheds a peculiar light, and tenders its assistance to the teacher, the moralist, the statesman, the lawyer, the divine, the philanthropist, or even the man of the world. To all who study man, it tenders its guidance.

"I commonly speak and write in accordance with the experience which I have gained by the past, though it be limited—yet I write now upon this particular point as prompted by the recollections of things which have really occurred. At the bar, nothing has been more useful to me than the limited information which I have upon this science. By it, I learn the character of the witnesses, and know how to deal with them,—the jurors are also familiar with me, and I know how and when to exert myself for my cause. I weigh each one's head in the scale of phrenology, judge his temperament and the structure of his body in conjunction with the skull, and then I am enabled to know what each man is, and when to pull the cords to accomplish the desideratum in contemplation. As a politician, I have found it to be of no less usefulness than at the bar. When engaged in political warfare, I act according to phrenological conclusions, relative to the character of those whom I may address. In performing the more important duties devolving upon me as a creature of the Creator, I have also found it to be of the greatest utility. It is often the case, that we desire to make calm the troubled heart of a near friend, whose soul is overwhelmed in grief, and we know not how to approach them while in their serious mood. Phrenology teaches how to administer the healing balm of a sincere and sympathetic heart to the wounded and sorrow-stricken fellow-being—to buoy up the widow's heart with the hope of meeting him who was dearer on earth than all other things here, and participating with her departed companion in drinking from the fount of pure enjoyment, circled with pearls and gems, and illumed with the glory of God, and singing praises with the redeemed on high. In my walks in life, and on every occasion, I consult with the science, and in no language can be expressed, either with a pen or the tongue, my admiration and faith in the unbounded usefulness of the science of phrenology of the mind. But scarce had the discovery of Dr. Gall been able to assert its place, and receive the countenance of scientific men, before we are called upon to witness a more astonishing discovery, by which his principles are confirmed and carried out beyond even his anticipations, and by which a system of philosophy is built up on a more gigantic scale than has ever been attempted. A system peculiar in this, that it is based upon experiments. I need scarcely say that I refer to the brilliant discoveries of the much celebrated Dr. Buchannan, of Kentucky, in relation to the functions of the brain, and the laws of its connection with the body. Dr. Buchannan is sufficiently known both in Europe and America to require not from me, an obscure individual, any praise or recommendation. If he required such, the best and most talented sons of Kentucky would rise, and say he was a man of wonderful abilities, and deserves the respect and confidence of all gentlemen of science and learning. There is not a citizen in the city of Louisville, who is acquainted with him, would ever allow his character as a gentleman of unquestionable probity and strict moral integrity to be brought in question. He is well known among us, and by all duly respected. The discoveries which he has made have been so extensive as to constitute a new and ample science in themselves, and have been presented under the title "Neurology," or the science of the nervous matter. They have been demonstrated before many intellectual and learned men, and have been fully received by those who have enjoyed the opportunity afforded by his private demonstrations. They are less extensively known to the public than they should be, because they have not been made subjects of popular exhibition, or carried about the country by ignorant men. But if they have not the notoriety which might thus be gained, they have also escaped the degradation of being presented in so improper a manner before the public. It is by the discriminating few that the merits of a science are to be determined, and the merits of Neurology in its present stage, are determined by such a tribunal. It is a science of no ordinary or moderate pretensions, and one which is destined to play a most important part in the history of the present century. The principal discovery by which these results are to be attained, is the great discovery published by Dr. Buchannan in the Spring of 1841 — that the human brain was capable of being powerfully excited by external means, in the natural state of man, without any previous mesmeric process, and without any preparation whatever. Dr. Buchannan, when he made this discovery, had no practical acquaintance with animal magnetism, and was led to it by his investigations of phrenology and physiology, which convinced him that the brain was excitable, and that through its excitability the most important discoveries might be made. Following the suggestions of his own inventive mind, he discovered various modes of exciting the living brain, and put them in practice among his friends, with the most astonishing effects. Persons of a certain impressible temperament he found could be acted upon in that manner to such an extent as to excite any of their passions or faculties to an extent bordering upon insanity. Carrying on these experiments in private, and with great caution, upon intelligent persons who were capable of giving an interesting account of the effects, he soon found himself in possession of a magazine of facts of the most beautiful and wonderful character. He carried his investigations into every department of phrenology, physiology, and the ultimate laws of life and mind. Gradually he brought forth some of his doctrines before the public, and stated them in brief publications and lectures. He demonstrated the power of controlling the action of the heart and arteries, of regulating the pulse, the breathing, the muscular strength, and the animal heat, by stimulating various organs in the brain which possess the power of regulating the system. He made his patients illustrate all the laws of life by his experiments upon the brain. He would stimulate one portion, and they would become highly intellectual — by another he would make them stupid and drowsy. By one organ he would make them gay and good humored, by another morose and quarrelsome — by one, active and strong — by another trembling and relaxed. He would make them temporary lunatics, and with perfect ease and safety restore them to their natural condition. But no sooner were these discoveries announced than the cultivators of animal magnetism began to make similar experiments upon patients in a somnambulic state, and found them so beautiful and interesting that they combined their neurological experiments with their mesmeric exhibitions throughout the country. These mesmeric experiments upon the brain have been witnessed by a great number of persons. They have been made in almost every village of our country, and although they depart widely from the mode of experimenting introduced by Dr. Buchannan, they may give some idea of the effects produced.

CLAIRVOYANCE.

Having been repeatedly solicited to give our view of the philosophy of Clairvoyance, we proceed to the arduous, but pleasing task. We wish it to be understood, however, that we make no great pretensions to originality. We shall avail ourselves of the writings and opinions of others, as far as they accord with what we believe to be correct philosophy, sustained by undeniable facts, and most especially by the Rev. Dr. Dodds, of Boston, whose views, we are proud to say, harmonize with our own.

In the first place, we think proper to present our readers with known facts as a foundation upon which we will base our philosophical conclusions.

The first case which we shall present for consideration, is one of catalepsy, reported by Dr. Patterson, of Lynchburgh, Virginia. A young lady was taken sick. Her physician, who lived some ten miles distant, was sent for. He found her in a state of catalepsy, and without the least sensation in the body; but she would have occasional fits of talking. He prescribed, stated he should be there the next evening, and left. The next evening came, and with it a most tremendous storm of rain and high winds. The darkness was profound. The family were seated, in silence and anxiety, in the room with the patient, when some one observed, "Well, the Doctor will not be here to-night." The patient answered—"Yes he will, he is coming now; he is all drenched with rain." The family, supposing this to be a mere reverie of the brain, a touch of delirium, made no reply. Nearly an hour elapsed, and the storm continued with unabating violence, when one of the pensive group again broke the silence, exclaiming, with a strong feeling of regret, "Well, it is certain the doctor will not be here to-night." The patient again answered—"Yes he will, he is coming now—there he is, hitching his horse—he is now coming to the door." They heard the rap, the door was opened, and in came the doctor.

I now ask, how did this patient, in a state of catalepsy, see the physician several miles distant, through the walls of a house, and in the darkest night, but with the internal sense, and the magnetic fluid as a medium; the same as in the mesmeric state? Dare physicians deny the innumerable cases of this kind, which have been witnessed by the most learned of the profession, and by whom they have been authentically reported. Now, I appeal to the profession, if it is possible for the nervous system, by disease, to be thrown into a condition, so that the patient may see in a manner entirely distinct from the ordinary mode of vision; then how can they, without presumption, affirm that a person cannot be thrown into a similar state by Mesmerism? It is proved by medical works, that such a state of the brain is possible, and who will take it upon himself to prove, that it cannot be produced by any other means than disease?

As a state of catalepsy is thus frequently attended with clairvoyance, and with total insensibility, so that amputation could be performed without pain; then why should we marvel, when we see the same identical phenomena produced by Mesmerism? The body may be thrown into the same spasmodic condition; in fact, the two conditions are very similar—one produced by disease, the other by art.

We have only to add, the great surprise manifested by physicians, at the development of these phenomena, is wholly gratuitous; for, in so doing, they display an unbounded deficiency of information, in relation to the nervous system, either in a healthy or diseased condition. We must say, after having scrutinized the human system, particularly the nervous, in all its various phases of health and disease, natural or mangnetic; and after taking into due consideration all the phenomena pertaining to the nervous system of the human animal which have fallen under our observation, as well as those which have been authentically reported by medical gentlemen of the highest order of talent, and upon whom every reliance can be placed, that if such phenomena were not exhibited under certain conditions of the nervous system, we should be horrified at the irregularity of Nature's laws.

We will give a few more cases in point, and pass on to the *rationale* of these effects. The nature of this article, and the work for which it is designed, will not permit us to enter fully into the subject. We have, however, written this subject out at full length, in the form of twelve popular lectures, which we shall shortly publish for the investigation of the public.

It is well known to physicians, that numbers of patients, in nervous excitements, have distinguished the smallest objects in the dark; others have developed as much acuteness in the sense of hearing. Dr. Phillips, of France, reports a case of a patient, by whom he was distinctly heard to relate the fatalness of his disease, though several rooms intervened between the one occupied by the doctor and the patient.

The case of Miss Jane C. Rider is one beautifully in point; one well authenticated, and with which every physician must be acquainted; and one, too, which I have never heard a physician deny, except one who had never read but one work on materia medica, and that one was published in the latter part of the sixteenth century. But some of them have marvellousness sufficiently developed, to believe that an effect can take place without a cause—that God and his laws are not immutable; but that He interferes occasionally, and throws out a marvellous hint in the form of a phenomenon, to frighten his gaping *children*, and to strike amazement and terror into their very souls, that they may shrink back into the dark, with fear and trembling, working out their salvation with awe and reverence! In this marvellous manner do they get round what *they* call *exceptions* to the laws of nature!!!

When Miss Rider was attacked with this spontaneous magnetic condition, or a modified form of catalepsy, she would attend to her household duties as well in this condition as when in a healthy and natural state, though her eyes might be bandaged, through which she could not see a particle, as was fully tested, at least sufficiently to put to rest all doubt. Pads of cotton were prepared and fitted close over her eyes, and over these were applied thick bandages, so that it was absolutely impossible that any one could see through them in the natural state; yet in this condition Miss Rider developed a power of vision beyond any thing that was possible in her natural state, with her eyes wide open. She saw and knew everything that was going on, and would perform anything required of her, even to the finest needle-work, with admirable facility. A book was placed in her hands upside down, in which she would read correctly. Her eyes being bandaged, and the book closed was no barrier to the acuteness of her internal vision, when her attention was called to a particular page. But it may be asked, What has this to do with Magnetism, it being a diseased state of the nervous system? When, however, we become acquainted with what the mind is, and where it is located; and when we take into consideration the external senses, and their relation to the mind, and that the concentration of the whole at the nervous centre give rise to an internal sense, which is as much superior in power to any one of the external senses, as the focal point of a pencil of rays is to the power of a single ray of light; and that the determination of the senses to the nervous centre may be produced by disease, as is frequently the case in catalepsy, somnambulism, &c.—by art, as in Mesmerism; or by a spontaneous action of the nervous system, which can scarcely be called disease, as in the case of Swedenborg, Tasso, as well as many others who, according to history, have figured in the world from time to time. No effect without its rational cause. When we are prepared to recognize this fact, there will be but little difficulty in solving all these perplexing problems. Prejudice laid aside for marvellous follies, and we should soon be as wise as the *serpent*, which deceived and led *us* into the broad and frequented road of error, crime and misery.

We again appeal to the medical profession. Have you never witnessed a case of natural somnambulism? There are numbers of such cases occur in this city; and in every town and neighborhood there are persons who rise in their sleep and perform labor, and return to their beds without knowing it. In this condition they have manifested all the varied phenomena of the mesmeric subject. And how do these somnambulists see to perform these operations? Surely not through the external senses, the natural organs of vision. A young lady at boarding-school was learning to paint miniatures, and on preparing one for examination-day, found she should be excelled by the other pupils. This perplexed her very much; her picture absorbed her whole attention: she retired to bed, and went to sleep with the picture strongly fixed in her mind. The magnetic fluid which acts upon the external senses throwing the individual organs into action, connecting the external senses with the nervous centre by a concentrated action of the mind, would be thrown upon the nervous centre, producing an internal sense, possessing the power of seeing, hearing, feeling, tasting, smelling, &c., independent of the external senses. Now, this young lady, with her mind in this condition, arose and performed her painting with the touch of an experienced artist. Her preceptress took a light, entered the room, and witnessed that lady finish her picture. Now, the query is, to those who deny the mesmeric power, How did this lady see to mix her colors, and give the nicest touch to a delicate drawing, where no human eye could discern an object?

The archbishop of Bordeaux states, in an English Encyclopedia, the case of a young clergyman who was in the habit of rising during the night, in a state of somnambulism, and writing his sermons. When he had finished writing one side of his manuscript, he would read and revise it. In order to ascertain whether he made any use of his natural eyes, the archbishop held a piece of pasteboard under his chin to prevent his seeing the paper; but he continued to write on, without being the least incommoded.

Dr. Dwight mentions a case of an individual who would, in the somnambulic state, go to the water and bathe, and return to bed, without the least knowledge of it when awake.

Judge Everett, formerly one of the judges of the circuit court of Indiana, and now a resident of Platte City, in this State, related a singular case of somnambulism to me, one evening after the close of a lecture on Mesmerism, of a young lawyer who travelled with him round the circuit. This young lawyer got up one night, went to the Wabash river, which was convenient, waded through water more than four feet deep, reached a large sawyer which lay in the middle of the river, and seated himself on its very point. The night was cold, yet his external senses were insensible to its effects, as he recollected nothing of the circumstance when awake.

The celebrated Mrs. Baker, of New York, who is usually denominated the sleeping preacher, is another remarkable instance of natural Magnetism. This lady would go through with every part of the Presbyterian service, from the psalm to the blessing. This lady has been known to preach excellent sermons when in the somnambulic state, a volume of which has been published.

In this condition individuals have been known to speak as never man spake in the natural state—to prophecy, and to hand down revelations which were found to be astonishingly true. The most eloquent and moral discourse I ever heard delivered was by a young man from Kentucky, a cabinet-maker, whom I mesmerized, excited the proper organs, and requested him to choose a subject and make a speech. He chose the Bible for his subject, upon which he made one of the grandest efforts that man ever made;—his gravity of manner—his deep-toned voice—his powerful but graceful gesticulation—the grandeur and sublimity of his ideas—the beauty and purity of his language, all conspired to waken up the latent soul of every hearer, as if touched by an electric shock of the great galvanic battery of nature. We might fill volumes with well authenticated cases of catalepsy and somnambulism, to sustain the effects manifested by mesmeric patients, which we shall now maintain to be philosophically correct.

The different degress of physical and mental exertion depends on the density of the fluid contained by the nerves compared with the density of the fluid contained by surrounding objects. If that in the nerves be more dense than that contained in the atmosphere, the mind will not be excited by surrounding objects, and sleep, whether natural or artificial, is unavoidable.

Persons while in this condition can describe objects and places with which they have not previously been acquainted. As the fluid in the person mesmerized is far more dense than in the surrounding atmosphere, it must be evident that the fluid would pass from the nerves more rapidly to seek an equilibrium, and the objects with which it would come in contact would be seen by the person magnetized.

When a quantity of the nervo-vital fluid is forced into the nerves, the mind ceases to perform its functions through the external senses, as is the case when the body is in the natural condition; therefore the body becomes inactive, and remains in a dormant state till the fluid becomes less dense in the nerves than in the atmosphere.

Should the nerves be highly charged, and any force calculated to produce pain be applied to the body of the individual mesmerized, no sensation will be produced, and the independent power of vision will be in proportion to the quantity of this fluid forced into the nerves, in comparison with that of surrounding nature. For illustration, the sun is the great centre of light, and, so far as the solar system is concerned, fills all space with its presence, through the agency of the minute particles of light which radiate from it in all directions, tending to produce an equilibrium of light throughout all space; and this is more particularly effected by these minute particles coming in contact with every object within the bounds of its sphere.

We can now more readily understand the principle of clairvoyance, when we recognise the brain as the nervous centre, from which minute particles are constantly flowing to produce an equilibrium with surrounding objects. Now, through the agency of these minute particles coming in contact with other objects in nature, those objects are visible to the nervous centre, from which those particles emanate.

The mind of the operator will act as a guide in directing the mind of the individual mesmerized, but the mind of the person mesmerized will see independent of the operator's. Those who are acquainted with the laws which govern the motions of fluids, will find no difficulty in comprehending this philosophy.

The wind blows towards any place where the atmosphere is most rare, and the greater the difference in the density of the atmosphere, the faster will be its motion to find an equilibrium. The same principle governs the fluid when passing from the nerves. This fluid renders any object with which it comes in contact transparent, hence the individual magnetized can see through opaque substances. The thickest walls—the densest substances, all become beautifully transparent to the magnetizee, through the agency of this subtle fluid, which penetrates and passes through all bodies, and connects the universal whole in one.

> "What can control the busy, chainless mind?
> The iron bar, the bolt, affect it not.
> Free as the unconstrained—the viewless wind,
> It wanders to each oft-frequented spot;
> No, ye cannot chain the soaring mind:
> Huge walls and grated cells constrain it not;
> The massive chain, the body frail, may bind,
> But *freedom* is the soul's peculiar lot."

That opaque bodies are rendered transparent by this fluid is susceptible of demonstration by a simple experiment. Charge an orange, or other opaque body with this fluid, and it will momentarily render it transparent. The most opaque body is as beautifully transparent to the clairvoyant subject, when perfectly in the mesmeric state, as the most transparent glass is to him when in the natural state, and for the same reason.

By what means is glass and other bodies rendered transparent? Is it not for the reason that those bodies are so chemically constituted that atmospheric light is freely admitted to pass through the pores, with little or no obstruction. It is generally admitted that all bodies, opaque as well as transparent, contain about one million of pores per square inch. If this is so, it may be asked, why are not all bodies transparent? The answer is, that opaque bodies are so chemically constituted, that atmospheric light is excluded, absorbed, or reflected.

But, suppose there is light, as much more subtle in its character, than atmospheric light, as electricity is more subtle than atmosphere, and that the mind possesses an internal sense sufficiently acute to perceive this light when brought into communication with it. Then the skull—the densest walls become as beautifully transparent to this internal sense, as the thinest glass is to the external organs of vision. The electric or magnetic light, is nothing less than Heaven's own light, which penetrates all bodies, immaterial how dense the substance, or fine its pores. The subtlety and brilliancy of the magnetic light is beyond description. Is it necessary to prove that this light does exist, and that it can be produced by art? or, are not all sufficiently acquainted with this fact already? Who does not know that the electric flash can be seen when the eyes are perfectly closed. A vivid flash of lightning is frequently seen by persons when asleep. The light finds its way to the mind's eye, without the direct agency of the external organs of vision. Individuals are frequenly awakened by the lightning's flash, when the noise without the flash would not have aroused them from their slumber. Persons, by receiving a severe blow on the head, will frequently see a flash of light. This light is undoubtedly an electric effect caused by the concussion of the brain.

We may give a simple experiment, which must set all quibbling at rest; one which I recollect of having read an account of some time since, as having been made by a scientific gentleman of Europe. And the Rev. Dr. Dodds, of Boston, a few evenings since, in Concert Hall, produced the same experiment to the entire satisfaction of a large and intelligent audience.

The experiment simply consists in taking a piece of zinc, and placing it between the upper lip and the gums; then take a piece of silver, a half dollar, and place it on the tongue, let the individual upon whom the experiment is tried, close his eyes, and bandage them as tight as he pleases;

then let him bring the silver in contact with the piece of zinc, by an upward motion of the tongue and under jaw, and a flash of light will be seen. Now, we ask, by what means was this light seen? by the natural organs of vision? No! this was impossible; for the light did not come in contact with these organs, but it passed immediately through the pores of the matter which here intervened between the light and the mind.

Hence the clairvoyant is able to discover objects and things which would appear impossible to any one not acquainted with the principles of this science. A person magnetized will tell the time by a watch, while it is enveloped in an opaqe substance, or describe articles in another room, with which he had no previous acquaintance. And, I repeat again, the internal power of vision will be in proportion to the magnetic condition of the nervous system, in comparison with other objects with which he is surrounded.

But the urgency of the subject demands that we dive to the very *ultimate*, and develope the whole truth, or we should still leave this god-like problem unsolved. We have commenced with first principles, and gradually approximated the very *ne plus ultra*, which has been glanced at by philosophers in all ages; but seems to have eluded the grasp, when just upon the eve of being snatched from oblivion! Philosophy, truth and reason compel us to develope the very ultimate of all philosophy: that God is all in all, and without him there is nothing. Hence, God possesses the attribute of omnipresence, and as a natural effect of the first, a second must follow, which we call omniscience. Hence, too, there is no vacuum in space, for He fills all space with His presence, and, of course, all things must be within the perview of his vision.

When, then, man was spoken into existence, by the Great I AM, we are taught that He "breathed into his nostrils the breath of life"—the very spirit of the ever-living God.

That spirit, then, which animates man, and unites him, to all *eternity*, with his Creator, God, is an emanation from the grand whole. This fact being recognized by the whole intelligent world, from the lowest and humblest order of believers in a God, up to the most pious and intelligent Christian, who bows the penitential knee upon the pure altar of faith, and pours forth his contrite spirit from the secret closet of his god-like mind. What follows we shall soon see.

Man being an emanation from that being who possesses the attributes of omnipresence and omniscience, must, in the very nature of things, possess those attributes in a degree, and that degree must be in proportion to the magnitude of that emanation in comparison with the grand whole. We may add *ceteres paribus*, being, however, always understood in philosophical solutions. Hence, the different powers of vision, as well as every other talent, in different individuals, either in the natural or mesmeric condition. To bring the solution of this beautiful problem within the purview of all, we shall bring in the following illustrations, which must render it familiar to every mind: —

The sun is the great center of solar light, and fills, so far as man is concerned, immensity with its presence, by throwing off minute particles of light, which emanate from itself. The sun possesses the property of light, so do the rays of light, or particles of matter, which emanate from the sun: But, would any one contend, that these minute particles possessed that property or attribue, in as high a degree as the sun from which they emanated? Most assuredly not. All, however, will confess, that they do possess that property, and that, too, in proportion as their magnitude approximates that of the sun.

Once more, in the same chain of reasoning: All admit that a coal of fire possesses the attribute or property of heat, and that the heat will be in proportion to its size, *ceteres paribus*. Now, should a spark fly from that coal, it would be an emanation from itself, and hence, it must possess the property of heat; but would any one presume to contend that it possessed heat in as great a degree as the coal from which it emanated? To do so would be the very climax of absurdity. But, that it did possess heat in a degree, and that that degree would be in proportion to the size of the spark, in comparison with the size of its parent coal.

We have now developed the conclusion, from which there is no appeal, that man possesses, in degree, the attributes of his Creator, God — the Parent of the universe, and all things contained therein.

Does any one deny that man possesses the power of being present in mind at any place with which he has become acquainted, through the medium of the external senses, and immaterial how far distant his body may be from the spot which he desires to visit in mind? Can he not, at any time he chooses, direct his mind's eye to any far distant, but oft-frequented spot—as, for instance, the place of his nativity—the old farm cottage—the green-swarded door-yard, shaded with his beautiful shrubbery—the farm, with its many fields—the rippling brook, leaping joyfully along, shaded by the many willows which spontaneously spring up to enjoy the scene—the old frequented school-house, where his boyish days were spent in childish play—the forest, in which he encountered the bleak and chilling winds in the exciting chase—the orchard, in which he took his evening strolls, side by side with his girlish sister, who amused him with her prattles of flowers and fruits—in all these, as well as in a thousand other instances, can he be present in mind, and almost feel as if his body, too, were there. Yes! all these things, in almost the twinkling of an eye, can be seen just as they have taken place, by casting the mind's eye (the internal sense) back to the old farm upon which he was raised.

Once more, we may familiarize ourselves with the description of any far distant place; as, for instance, the city of London, in Great Britain; then we may close our eyes, if we please, and, if it were possible, all our external senses, and then cast our mind's eye, by an effort of the will, to the very spot where London is located, and we can see the streets and the alleys;—here, the magnificent cathedral of St. Paul's, with its Grecian architecture, capped with its domes and spires; and there, the Westminister Abbey, a noble specimen of Gothic structure; and yonder, the monument, with its blazing sun, towering more than two huudred feet in the air, standing forth as an ever-living record of the destructive fire of 1666; and not far in the distance is presented to the view the magnificent New London bridge, stretching its strong and beautiful architecture, composed of five semi-eliptical arches, across the well-known Thames; and still scattered in the distance round is the splendor of courts and palaces. This may appear almost as vivid as if we were present in both mind and body. Any one can make the experiment, and satisfy himself that it is philosically true.

But I am well aware that too many will call this association of ideas by comparison. But what is association, memory, &c., but partial omnipresence and omniscience with all things with which we are, or can be, acquainted.

Again, the mind of man is as perfectly omnipresent, so far as his own body is concerned, as God is omnipresent in respect to the universe. The point of the finest needle cannot be put down upon any part of the whole surface of the body, but what the mind is present there; for the mind radiates forth from the nervous centre, ramifying the whole system, just as the rays of light from the great fountain of light radiate forth throughout the solar system. And shall we come to the conclusion, with all these facts staring us in the face, that the mind of man possesses no portion of the attributes of his Heavenly Father—the God of nature, from which he emanated? We dare not harbor so impious a thought—so objectionable an idea—so irrational a conclusion.

MESMERISM IN ST. LOUIS.

In continuing our remarks on the progress of Mesmerism, it might be judicious to state some of the obstacles which have impeded its progress, and why it has not elicited as much inquiry here as in the East.

Every age of the world has been characterized by some great leading principle, which appeared to form public opinion, and give direction to the energies of the human mind. In barbarous ages, heroism, military glory and personal prowess appear to have been the power which moved the mass, and made them subservient to the wishes of their masters. Transmitted to the descendants of these men, it gradually merged into an aristocracy of birth, until he who could trace his genealogy from a distinguished source was entitled to rank and consideration, although he might be a consummate blockhead, or a cowardly poltroon. The discovery of the New World, and the consequent expansion of commerce, and the general diffusion of knowledge, introduced a new element into society. Wealth became the lever which moved the world, and may still be said to be the governing principle of the age in which we live. But the far-seeing eye of reason can already discern another great principle, which, although scarcely visible in the dim mists of the future, is destined in turn to supplant its predecessors. *Intellect—mental power*, is already grasping the helm, and giving direction to the physical and mental energies of the human race.

Progress appears to be a fixed law of *mind* as well as *matter*. Mind can no more retain a fixed place of rest, and retain its present existence, than the solar system preserve its harmony after the planets shall have ceased to revolve in their respective orbits. The march of mind has been steadily onward. Personal prowess and heroism became powerless unless sustained by illustrious origin; illustrious origin, in turn, became contemptible, unless sustained by wealth; and wealth, in its turn, will sink into insignificance, unless sustained by intellectual power.

These changes have kept pace with the progress of knowledge. When we look abroad in the world, we find societies still existing, in all these various grades, according to the advancement they have attained.

With these preliminary remarks, we are prepared to answer the question, Why Mesmerism has not made as rapid progress in the West as in the East.

The West has been settled by those restless and enterprizing individuals, who were dissatisfied with the more slow, plodding, quiet of the East; men whose very existence appears to depend upon the excitement of that telegraphic celerity of change and improvement which characterizes the West, where towns, cities and States spring into existence, as it were, by the magic touch of the sorcerer's wand. Men move by steam, work by steam, and think by steam. An immense amount of labor is accomplished in a comparatively short space of time; but in the excitement of progress they neglect to polish and refine what is constructed. The work is blocked out and rough hewn, and the workmen pass on to other undertakings, leaving the finishing and polishing to those who may follow, after this mania of change and progress has died away, for lack of material to perpetuate its existence. We would not be understood to say, that the mental energies of the people of the West are less than in any other section of the country, but that they are more exclusively employed in giving direction to physical efforts, from the nature of the circumstances by which they are surrounded. They have not acquired a taste for philosophical and intellectual investigations. In a word, wealth has the supremacy; money is the great motive power which propels the complicated machinery of society. A glance at the popular political orators shows this difference of taste. At our mass meetings, the orator who can best *amuse* is most loudly called for, while a broad grin sits on every countenance, in anticipation of the glorious sport which is to follow. In the East, only the orator who can instruct gains a hearing on great occasions, while the operations of those of a light and amusing character are confined to the primary meetings and the club rooms.

The most interesting portion of the discoveries of Mesmerism are, the causes of the various physical and mental operations of life. Philosophers of the old school have reasoned and written hundreds of volumes on this subject, without arriving at any definite conclusions. It is true, they have obtained momentary glimpses of the great and important facts, but, as Dr. Paley expresses it, "there is a veil intervening which no human eye can penetrate." Have physiologists explained why the blood circulates, or how mind can act upon matter, or even how it can act at all, or what creates the living principle of animal and vegetable life, and how it is maintained and carried on? Certainly not. The philosophy of Mesmerism has rent this veil asunder, and opened to our view the secret laboratory of nature. It is true, the science is in its infancy; the mental vision is still dazzled by the brilliancy of these discoveries; but, from what has already been achieved, we are led to believe, that when, from familiarity, the mental vision shall be enabled to look calmly and intently upon these wonderful phenomena, we shall be enabled to solve all the operations of *nature's laws* with as much certainty as we can a geometrical problem.

This being the character of the discovery, the preceding remarks in reference to the difference of taste between the East and the West explain why it has elicited more inquiry, and its doctrines been more generally received, in the former than the latter place. In physical energies the West is equal, if not superior, to the East, while in mental culture we are far behind the age. True, we have men of genius, men of sterling talent and of cultivated taste, but when we compare the great mass, we fall far in the rear.

In the East, mental power is dethroning the aristocracy of wealth, and catching the breeze of popular favor; consequently, philosophical lectures have become *fashionable*, and, as a matter of course, are admired by all, even if they do not understand a single sentence, or never had an original idea in the course of their lives.

But this is not the only cause which operated to retard the progress of the science. Men of inferior talents have thrust themselves before the public, putting men of science to the blush, with their fantastic tricks, while their own self-esteem and vain-glory prevented their being aware of the ridiculous figures they cut, before an intelligent audience. It would be strange, indeed, if intelligent men, who looked only at public exhibitions for the *proof* of the science, did not become disgusted with these frivolous and clownish tricks, and abandon the subject, as unworthy of a second thought. We would not wish to discourage those who have devoted their best energies to the advocacy of the cause; but justice to the friends of the science, demands that we should not screen from censure those individuals who are doing more injury to the cause than all the sceptics in Christendom. Isolated facts, without a why or a wherefore, or a reason for their existence, may excite wonder and marvellousness; make the ignorant stare, and puzzle the wise, for a brief space; but other objects intervene, and they are either forgotten, or lie dormant, like an incubus, on the mind. On the other hand, when, from reasoning from effects to their causes, we become satisfied *why* these facts exist, it makes a lasting and permanent impression on the mind. The course of *some* medical men is to us an enigma. How men who *profess* to stand at the head of this learned profession, should treat with contempt and ridicule, a cause which, on the most respectable authority, lays claim to such important results, which are so intimately connected with their practice, that its establishment would revolutionize their whole system, is inexplicable. We cannot account for their course, except on the broad principle laid down by Dr. McDowell, in a lecture delivered in the Baptist Church, on the subject of Mesmerism, Millerism, Magnetism, Mormonism, and all the other isms:

viz, "That mankind are divided into two great classes — the humbuggers and the humbuggees." We leave the Doctor to consult his own self-esteem, and take his position accordingly. If this principle is correct, we easily solve the problem of these would-be great men; — knowing *their* professions to be a humbug from their *own* experience, and judging *others* by *themselves*, (which is righteous judgment), they come to the conclusion that they are of like character, and considering them as rivals in the same great and scientific art, treat them accordingly.

Our limited space prevents our continuing this subject in the present number, but we cannot close without paying a tribute to Rev. I. T. Hinton. He not only had the independence to investigate this subject, but dared to advocate it, both in the private circle and in public. He stood forth, and boldly contended for those principles which he knew to be true, disregarding the sneers and ridicule which were heaped upon him, regardless of his honesty as a man, and as a preacher of the Gospel being called in question, by the opponents of Mesmerism, in consequence of the stand he had taken. His integrity and firmness rose superior to all. Conscious of the rectitude of his intentions, and satisfied of the benevolence of the object, he pursued his course, regardless of the poisoned shafts of malice and detraction, which were hurled against him in his career. The petty malignity of his enemies was carried to such lengths as to force him, in justification of his course, to come out and defend himself; which he did in three lectures, in Concert Hall. The host of evidence wilded by his eloquence on that occasion, may be said to have established Mesmerism in Saint Louis, and given it that importance which commands the *respect* of those who do not even yield it their credence. J. F. S.

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COLUMBIAN MAGNETIC COLLEGE.

The following transactions, in relation to the above institution, which is now in successful operation in Boston, was handed us by Dr. J. B. Dods, of that place, who has, during the past month, been successfully lecturing in this city. Dr. Dods' talents are so well known in the United States, that encomium from us would be superfluous, as he is able to maintain the reputation which he has already attained. Having, for a long time, felt the necessity of such an institution, we hail its establishment as a propitious omen, and will gladly give place in our pages to any communication that may tend to the promotion of its interests: —

"At a meeting of several of the friends of Mesmerism, held in Boston, on Thursday evening, May 29th, 1845, to deliberate on the importance of a thorough co-operation among the believers in the science of Mesmerism, with a view to guard the community more effectually against imposition, it was, after considerable discussion, *Resolved*, That a committee be appointed to prepare some plan of organization, and report to an adjourned meeting, to be held on Tuesday evening, June 3d, 1845.

"At the adjournment, the following preamble and articles of regulation were unanimously adopted:—

"PREAMBLE.

"Whereas, Mesmerism, notwithstanding the war of opposition which has been waged against it, has nevertheless continued to progress with a firm and steady step, and to gain popular favor, until at length it is embraced by minds of the first class of talents in both continents, and is not only acknowledged to be one of the most sublime and important sciences yet discovered, but is more and more claiming the attention of philanthropists throughout the Christian world—and whereas, it is acknowledged by its advocates to be a most important aid to medical and surgical science; and whereas, it has been abused by ignorant and designing persons, who have practised imposition upon the public, by attempting to lecture upon this science, and also to examine and treat diseases, who were utterly unqualified therefor: It is therefore deemed and felt to be an important duty which its friends owe the public, to establish a College, whose location shall hereafter be determined, and all the necessary arrangements made. But, until the funds for erecting or purchasing suitable buildings for said College can be obtained, by collections and donations, it is deemed advisable and important that the following immediate action should be taken, so that the public may know on what to depend.

"ART. 1st. It shall be called the '*Columbian Magnetic College and Mesmeric Institution.*'

"ART. 2d. Its officers shall consist of two Presidents and nine Trustees, and as many Professors as the business of the College may require. The Presidents and Professors shall be chosen once in four years, after the College building shall have been purchased—and the Trustees once in two years. But previous to such time they shall be chosen annually. One President shall reside in the place where the College may be located, while the other may travel and lecture, or reside in any other section of the United States.

"ART. 3d. It shall be the duty of the President and Professors to grant diplomas to applicants, who, on examination, shall be found qualified, *medically* and *scientifically*, to become public lecturers on this science, and Mesmeric Physicians, so that the public may hereafter be guarded against impositions.

"Art. 4th. As there are but few Mesmeric subjects who are capable of examining diseases thoroughly, a license shall be given to each applicant, signed by one of the Presidents and the Professors, or a majority of them, who, on a faithful examination and trial, shall be found to possess this gift, and also the necessary physiological qualifications to constitute a good subject.

"Art. 5th. The officers, who are to constitute the Faculty, shall be chosen by the propritors and donors of said Columbian Magnetic College, after said building shall have been completed by them, and until then, the choosing of the Trustees may be dispensed with.

"Art. 6th. For the time being, and until the location be chosen, and the College building be reared, Dr. Gilbert and J. B. Dods, of Boston, are appointed Presidents, with power to appoint three Professors, who, for the present, shall constitute a board of directors for the College.

"Art. 7th. The annual meeting of the College proprietors shall be held on the first Wednesday in June.

"Art. 8th. The College shall at present be located at No. 42 Billerica street, Boston, and will be in charge of T. K. Taylor and W. S. Tarbox, as Mesmeric Physicians.

"After the adoption of the foregoing Articles, it was Voted, that the interest of the College and of the science, require that at least two Corresponding Secretaries should be appointed to communicate with the friends of the cause, and request their aid in behalf of the College. E. J. Cutter, Esqr., of Boston, and Dr. Halstead, of Rochester, N. Y., were accordingly appointed.

T. K. TAYLOR, Secretary.

Boston, June 3d, 1845.

MAGNETIC ACTION.

FOR THE ST. LOUIS MAGNET.

Inquirers into the phenomena of Mesmerism, who may be in doubt as to the reality of any magnetic action by one human body or mind upon another, may obtain a fact strongly corroborative of the mesmeric theory, by an experiment slighly varied from one which was first introduced to the public by, I believe, Sir David Brewster, in his work on Natural Magic. Let any individual extend himself flat upon the floor, and let four others stand around him, (two on each side), with their hands slightly elevated; let the five simultaneously exhale their breath, during the time which might be occupied by counting, moderately, one, two, three, four; and as they exhale, let the four stoop gently, bring down their hands, and place the two first fingers of each hand under the shoulders, arms, thighs and legs of the subject. As their fingers are thus placed, let all five simultaneously commence drawing in their breath: the four rising, at the same time, will find that the subject can be raised upon the points of their fingers, while they are thus breathing, with an ease which will astonish those who are not familiar with the experiment.

It will require some little practice for the five to breathe and move in a simultaneous manner, and with the seriousness which is demanded by the experiment; but if, after this shall have been acquired, the subject will lay himself down across the platform of a common balance, and be accurately weighed, and the operators shall then go through with the same ceremony, excepting that they shall only touch the subject without lifting, an actual loss of weight will be indicated by the balance, which certainly cannot be accounted for by attributing it to the "imagination" of the scale beam. W. C. P.

NEW HARMONY, Ind., July 10, 1845.

The suggestions accompanying the above communication are kindly received, but too late to profit by them in the present number. W. C. P. has our most sincere thanks for the interest which he manifests in our welfare. We should be happy to hear from him as often as would suit his convenience. EDITORS.

* * *

MEDICAL CASES.

Mr. McC———, of this city, having labored under the influence of some unknown disease for a length of time, which baffled the skill of those physicians who are necessarily dependent on external indications for their knowledge of internal diseases, called at our office and requested to be examined by our clairvoyant, the result of which we take a pleasure in laying before our readers.

Disease.—Digestive organs weak; stomach much irritated, the membrane of which is considerably drawn; small fleshy excrescence in the lower part of the stomach; liver rather inactive.

Cause.—Injurious medicine taken into the stomach.

Remedy.—1st. Light emetic. 2d. The vegetable hepatic pill should be taken in doses of from four to five every other evening for two weeks, after which the dose may be reduced to three pills twice per week. 3d. Half ounce spikenard root, (*Aralia racemosa,*) half do. columbo, (*trasera verticellata,*) half do. liverwort; these three articles should be boiled in water till the strength is all obtained, the liquid strained and boiled down to one pint; then take half a gill of good brandy, to which must be added two tea-spoonfuls of British oil; then both added to the preparation while boiling. Dose—table-spoonful before each meal.

This prescription proved entirely successful. The gentleman's bad feelings all left him in the course of three weeks. He became entirely healthy, and has remained so up to the present time. This examination was made December 24, 1844.

[COMMUNICATED.]

Mrs. M———, of this city, was last winter severely attacked with tic douloureaux. The muscles of the face were affected to such a degree that she could not bear to have it touched, not even slightly with the ends of the fingers while making the manipulations. The complaint was entirely removed by Mesmerism in the course of one week, there being a gradual improvement from the first sitting.

The mode of procedure was, in the first place, to produce a general influence over the system by the usual method of Mesmerizing; then make the manipulations downwards over the part affected, which, in the first place, had to be done without contact. J. T. M.

CAUSES OF APOPLEXY.

Any thing calculated to hurry the circulation, and to increase the force of the heart's action, is apt to act as an exciting cause of apoplexy, simply in augmenting the momentum of the blood against the sides of the cerebral vessels, which in advanced life are so often diseased and weak. Strong bodily exercise, therefore, is a thing to be avoided by all persons in whom the predisposition to apoplexy has declared itself. It is of much importance to make patients aware of this, for many persons think, when they labor under uncomfortable bodily feelings of any kind, they may get rid of them by brisk walking, or galloping some miles in the country, on horseback. Another dangerous state of such persons arises whenever the free escape of the blood from the head is subsequently obstructed. Certain diseases, chiefly thoracic, which tend to keep the veins of the head inordinately full, rank among the predisposing causes of apoplexy.—*Med. Gaz.*

POETRY.

"These are thy glorious works, Parent of good."—*Milton.*

Throughout the vast expanse of blue;
  Through all that's known to mortal ken;
From all the lore the ancient's knew;
  By all that's now revealed to men—

We learn some latent power's control,
  A law that fills the Universe,
And while it holds the heart and *soul*,
  Its *forces* through the whole disperse.

I asked, "What holds the whirling spheres
  Within the even path they tread?
What measures to each star its years,
  Or marks the cycles which have fled?

"What power renews our mother earth,
  And spreads a beauteous mantle o'er;
Each season bringing into birth
  The charms we had not seen before?

"What power imparts to manhood's form
  The iron nerve and dauntless soul?
A heart to breast the fearful storm,
  And spurn the bands of weak control?"

Again I asked the earth and skies
  "What hidden power, whose force reveals
All that the most inquiring eyes
  Desire—and yet itself conceals?"

"It is the *spirit*, oh terrestrial son,
  Of Him who formed thee out of earthly clay
Who, breathing in thy nostrils, life begun;
  Yet ere thyself desir'st, will pass away.

"It is the *soul* of Nature, thus arrayed—
  The animating spark which warms the whole,
Replenishing the new from the decayed—
  Causing the earth to bloom, and oceans roll."

P. S.

THE

SAINT LOUIS MAGNET.

Vol. 1. SAINT LOUIS, SEPT. 1, 1845. No. 5.

PROGRESS OF SOCIETY.

[*Concluded.*]

The mesmeric operations upon the brain in Europe and America have all been subsequent to Dr. Buchannan's discovery, and appear to have been made rather for the purpose of exciting wonder than of developing scientific principles. Dr. Buchannan has too much self-respect, and too high a regard for the great truths which he has discovered, to convert them into a mere means of creating vulgar astonishment. Like a true lover of nature, he has been steadily prosecuting his researches, and maturing a system of anthropology, based upon experiments which I venture to predict will create a new era in the science of man. Many are eagerly awaiting its publication, to learn the philosophy of the wonderful facts which they believe exist, but which have not been satisfactorily accounted for. The science of Neurology, I believe, will fully answer their expectations, for its scope is apparently unlimited. I would hardly venture to state even the Neurological facts which I have witnessed with my own eyes, which transcend any that I ever have before known, in their combination of philosophical utility and startling novelty. Yet I have seen very few of the philosophical experiments of Neurology. At the first meeting of Dr. Buchannan's private class that I attended, I was satisfied that there was "something in the science," and resolved to be attentive in future. At the next I attended I saw an experiment that was very remarkable. It was proposed to try the influence of letters upon any impressible person who might be present. Accordingly, a letter was produced by one of the company, which she said was worthy of a trial in this manner, and which she wished to see applied to some impressible person, to observe its effects. Dr. Buchannan consented, and taking the letter unopened in his hand, applied it to the head of Mrs. M*****, of intellectual and pleasing countenance, who belonged to the class, and who had been ascertained to be very impressible. In about a minute, or less, there was a marked change in her countenance, which became grave and distressed; her eyes were downcast — she became agitated — her head fell, as unable to be supported. At this juncture, fearing that the excitement might go too far, Dr. Buchannan removed the letter from her forehead, and the influence as speedily as possible. She recovered in about a minute, so as to describe her impressions, and stated that she had felt as if completely overcome — as if some great calamity had fallen upon her, and it was more than she could possibly endure — that she was agitated, weakened, overpowered by the mental struggle — that it was such a feeling as would be produced by the loss of friends or family by death, and if she had not been habituated to control her feelings, she remarked her first impulse would have been to scream. Immediately the same letter was transferred to another, without inquiring whether the result had been correct or not, so as to ascertain if different persons could coincide. Mrs. R*****, a lady whose impressibility had not been tested, agreed to hold the letter to her forehead, and report the impressions it might give her. She held it a few moments in contact with her forehead, and then remarked that it produced an unpleasant sensation, and that the experiment was disagreeable — that it gave rise to a distressed state of mind, such as might be produced by grief, or similar depressing passions. She agreed with the former lady, that the feelings were such as might be produced by the death of friends; but she did not feel the effect with so much intensity. She was desired to continue the experiment, and held it again to her forehead without experiencing any different result. She was relieved from the effects by Dr. Buchannan, and Mrs. Judge P*****, who brought the letter, was asked what were its contents and character. From her reply, we learned that it was a letter from a gentleman of very deep and intense feeling, expressing the most poignant and overwhelming grief for the death of several of his children, who had been cut off suddenly in the prime of life, leaving him overpowered and stunned by the greatness of his calamity. She was struck with the coincidence of expression, as Mrs. M. conveyed the idea of some affliction which was more than she could bear, and a similar expression was contained in the letter. She considered the result extremely satisfactory and wonderful. What does such an experiment show? Does it not prove some great principle? Does it not corroborate the science of which it is given as an evidence? In truth, Neurology might be called *the science of mysteries*. It undertakes to explain the mysteries of the mind, and it does so by facts too mysterious and startling for popular belief. But the eye-witness cannot discredit what occurs before him. The parties to the experiment which I witnessed belonged to families of great respectability, and were attending the private lectures to become acquainted with the science. The experiments were made privately with such persons as were of the right kind to give satisfaction.

Witnessing these experiments convinced me of the truth of the science. It would be dishonest in me to doubt or deny after the facts have been made obvious. It is morally wrong to hold back and not do full justice to science of such character when it is first introduced, for I hold that it is worse to defame a useful science than to slander an individual. With these principles I think it my duty to acknowledge facts when I believe them to be such, and the experiments which I have seen have been so clear that I must confess the truth of the science of Neurology, or the science of the brain. On a subsequent private occasion, a letter was placed in the hands of the same lady by Dr. Buchannan, and the effects upon her countenance were entirely different from the experiment just mentioned. She seemed well pleased and happy; she smiled and occasionally sighed, and when asked why she sighed, replied that it must be a love-letter, for it produced a very tender and happy state of mind. "Well," said Dr. Buchannan, "we must have a consultation among you about this. Will you, Mrs. ———, try this letter also, and give your opinion? If you and Mrs. M. hold consultation, perhaps you can determine with certainty." The ladies accordingly sat together, and each placed a hand upon the letter. In a few moments they agreed that they felt a similar influence, and that it must certainly be a love-letter. The young lady felt a slight sadness in addition to the emotions which they felt in common. The letter, of which Dr. Buchannan read a portion, appeared to be, as they declared, the letter of a lover, but was also the letter of a *disappointed* lover, and spoke of his disappointment, which was a sufficient reason for the sadness which it imparted. Another letter was produced by a gentleman who was very skeptical, and was placed in the hands of the same lady. Under this influence she did not show any particular passion or emotion, but appeared entirely calm and reflective. She described a character of quite virtuous, amiable, and reflective habits, which appeared very justly to be that of the writer of the letter. Several similar experiments were tried upon gentlemen. A letter written under the influence of deep grief was applied to his forehead, and followed by the letter of a lover declaring his passion. Under the influence of the former he felt uncomfortable, looked depressed, and complained of pain in the forehead; under the influence of the latter his unpleasant feelings were removed and his countenance covered with smiles. The experiment was repeated. The letter of grief brought back the unpleasant sensations and disagreeable state of mind; the letter of love restored him to an agreeable, social mood, and to pleasant feelings, after which he was informed of the character of each letter that had been applied to his forehead. But the experiment which seemed to me the most striking was one made on an autograph furnished by myself. It was the autograph of John Tyler. This autograph was placed between her hands, and she soon rose to a more erect position, and assumed an universal degree of dignity. The effect was almost instantaneous. She spoke with a firmness and precision, and with an air of condescension, which showed that she felt a very elevated sense of her own dignity. When asked what she thought of the writer whose influence she felt now, she replied that he was a noble character — one who occupied a very elevated sphere in life, who had power, and was accustomed to command. She was asked whom he was accustomed to command — was it men, women, children, or servants? "Not," she replied, "the latter, certainly — it is men." "Are they citizens or soldiers?" "I dont," she replied, "know, they might be either, but he is not a millitary character." After a few further remarks, she said that she would not say anything more about his character, for she felt finally convinced in her own mind that it was the present President of the United States. She could not tell how she arrived at this conclusion, but she felt perfectly certain of the fact. I have now related enough of the experiments to inform the reader a part of my investigation. I have tried many letters in the same way. Some were written in stenography, and wholly unknown to all others but myself, and the investigations in every instance were so startling, that I was compelled to lay aside my skepticism, so far as concerneth Neurology, or the science of the brain.

To revert to the subject of human progress, what has the philanthropist to hope from the science of Neurology? I would reply, that he has much to hope. Its discovery shows that the inventive genius of man is adequate to mastering all the difficult problems of nature; the most difficult of all problems — the offices of the brain — the connection of mind and matter, has already been solved by a young American, a native "backwoodsman of Kentucky," as Byron would have called him, and he is daily carrying his investigations farther. May not other more wonderful discoveries rend still further the veil which hangs over the inner sanctum of nature? Is not the signal success of Dr. Buchannan cheering to all who undertake the investigation of difficult sciences? But we hope great progress from Neurology itself. It confirms nearly all the discoveries of Gall and Spurzheim, and developes many functions of which they never dreamed. I have examined the Neurological diagram published by Dr. Buchannan at Boston, and I find a vast deal of new matter in his sketches of the organs of the brain. I have not time here to go into the details of these discoveries which Dr. Buchannan is now preparing to publish, but I must allude to a principal feature of the new science, which promises the greatest practical results. Medical science has heretofore been defective in one essential particular. It has been incapable of giving any philosophy of the functions of the nervous system. It has told us almost nothing of the power of the brain as a part of the body, modifying its health and exercising a controling power over all the functions of animal organic life. It has not been sufficiently performed — it has not traced back effects to their first causes. This is the defect which, I understand, Neurology proposes to remedy, and probably many others which I do not comprehend, not being fully acquainted with the science and its claims. The power which the brain exercises through the spinal and pneumogastric nerves, Neurology traces to the particular organs from which it emanates, and thus discovers the condition of the brain, both in health and disease. In fever, paralysis, or insanity, there is a change of the cerebral functions which Neurology alone can explain. Thus, as it traces up health and disease to their proximate causes in the nervous system, it imparts much of the accuracy of science to these obscure subjects. In addition to this, by another style of experiments upon the impressible temperaments, Dr. Buchannan traces the exact relations of all the articles of food and medicine to the human constitution, showing how each article affects the different organs of the brain and the different physiological functions. Thus he lays the basis for a far more natural and exact system of medicine than we have ever heretofore enjoyed.

Such are some of the results of the wonderful American discovery! A discovery in comparison with which none give us so high and cheering hopes of human progress. If the hopes of the friends of Neurology are fulfilled even partially, the present century will be distinguished by the fact, that man enters into full communion with himself, and, studying his own nature, learns how to attain his happiness as an individual, how to perfect his constitution as a physiological being, and how to arrange the institutions and usages of society to secure the greatest happiness to all; for the development of the nature of individual man is also a development of the laws of society and the true principles of progress. This development of the elements of the nature of man as an individual, upon which all social science must be based, is itself based upon the simple fact that the brain is capable of being excited. All the mental and physiological faculties may be considered as concentrated in the brain, which is the link between the mind and the body. Dr. Buchannan asserts that he has the power of operating upon the brain to excite particular portions, and that his experiments are simple, and have often been repeated by others. I see nothing unreasonable in his premises, and his facts are not incredible when they are subject to our observation. Although I have not witnessed all his experiments, I am satisfied of their truth, for if it is possible to excite any one part of the brain so as to discover its functions, it is possible also to excite other parts, and thus discover all its powers. Such discoveries have been made, and the same can be repeated, and the effects of the excitement of the organs on different regions of the cerebral is wonderful. But what then? Are they less credible? By no means. We may distrust any discovery in a new field which does not reveal something wonderful. Nature does not produce all her works from a single stereotype plate, but every where introduces an agreeable variety, that we may be roused by the novel freshness of each science that opens upon us in studying her works. Of all her productions, none are so rich in variety and complexity—none so strongly excite our wonder or interest, as the constitution of man; and if in this recent American discovery we possess the key to the human constitution, we may rejoice to live in the age and country which are to witness the opening of a great volume of truth hitherto sealed.

The vast variety of experiments which will be made upon the human constitution from that key will be, until the end of time, a source of pleasure and instruction. Now that such experiments may be made with care and safety, and with the full possession of reason and consciousness by all parties, there will be no hinderance to the active cultivation of human philosophy. The pursuit of truth, when not surrounded by too great difficulties, has an irresistible fascination. The appetite grows continually by indulgence and gratification. I therefore think it not extravagant to hope that mental, social, and medical philosophy will advance during the present century with almost an altogether unexampled speed, and thus Buchannan's discovery of cerebral excitability will be to philosophy like the telescope to astronomy—the means of bringing to the common eye new worlds for our observations—to enlarge our conceptions of the Divine power, elevate our minds with lofty contemplations, and fit us for the onward PROGRESS OF SOCIETY.

Louisville, Ky., Feb., 1845. T. P. SHAFFNER.

MESMERISM IN SAINT LOUIS.

At a meeting held at the Court House, for the purpose of furthering the cause of Animal Magnetism, on motion of I. Hedges, E. R. Mason was called to the chair, and E. C. Eads appointed secretary. A motion was then made, that a committee of five be appoited to draft resolutions, expressive of the feelings of the meeting: Whereupon, the following gentlemen were appointed:—Mr. Coleman, J. M. Field, D. D. Page, Robert Orme, and Dr. J. N. McDowell. Dr. McDowell begged to be excused, when Mr. Houston was appointed to fill his place. During the absence of the committee, Dr. McNair was called upon to make a speech, who addressed the meeting, in a few brief remarks. Dr. J. N. McDowell was then called for, and addressed the meeting, in a speech, showing the identity of Heat, Electricity, Galvanism, Magnetism, and the nervous fluid. He also related some instances of mesmeric effects, which, he wished it to be understood, he did not at all deny.

The following preamble and resolutions were then reported by the committee, and adopted:—

Whereas, All newly discovered truths are at first received with great indifference, or rejected, and treated as mere delusions, or impostures; inquiry, thereby being thrown back into the old paths of error and tradition; and whereas, careful investigation is the only true mode of obtaining knowledge, with regard to new truths, whether of science or art: therefore, be it

Resolved, That the many evidences given by some of our most worthy citizens, in favor of Animal Magnetism, not only as to its truth, but also as to its vast importance to suffering humanity, demands at our hands cordial support.

Resolved, That the bold and persevering manner in which some of our citizens have pressed forward, and stood by this new discovery, amid the opposition of the prejudiced, will ensure them the gratitude of every lover of truth.

Resolved, That the Rev. I. T. Hinton has our hearty thanks for the fearless and noble effort he made here in favor of this valuable discovery.

Resolved, That we would recommend an investigating committee of ten, whose duty it shall be to collect all facts concerning Animal Magnetism, as a remedial agent, and to report such facts to an adjourned meeting.

A motion was made by Mr. Hedges, that the committee of ten be appointed by the Chair: Whereupon, Uriel Wright, Esqr., Dr. Pallen, Mr. E. Flagg, Dr. Coons, Dr. Morgan, Dr. C. Williams, J. M. Field, Dr. McNair, D. D. Page, and Dr. Hall, were appointed. By request, Charles Collins, I. Hedges, and John J. Ellett were added to the number.

Resolved, That this meeting adjourn, to meet at such time as the committee may deem advisable.

E. R. MASON, *Chairman*,
E. C. EADS, *Sec'y*.

Saint Louis, January 7, 1845.

It will be perceived that this committee was appointed "to collect the *facts* concerning Animal Magnetism as a *remedial agent*, and to report such *facts* to an adjourned meeting." Instead of going forward in the duty for which they had been appointed, they commenced a series of experiments to satisfy a few self-sufficient sceptics, who were of their number, with as much assiduity as if the truth of the science depended upon the opinion of these obscure individuals, who did not possess sufficient talent to even make themselves generally known among the members of their own profession. Their opposition giving them, temporarily, an importance, which being as pleasing as new, caused them to be both blind and deaf to the proofs laid before them: they would not open their eyes lest they should perceive their own insignificance, or their ears, lest they should hear their stupid ignorance echoed by every candid and intelligent mind in the scientific world, that possessed like means of information. The judicious friends of the science, on the other hand, becoming disgusted at their dogmatical stupidity, left them to grope their way in the dark, until the sun of reason should enlighten their benighted understandings. In the transactions of the committee the public appear to have been wholly lost sight of, and the object for which they were appointed, entirely forgotten. A few individuals on both sides of the question, appeared to look upon the whole matter as an arrangement gotten up for their especial gratification—the one considering it a fit opportunity to show off to advantage their superior knowledge, while the others seized with avidity the chance of letting it be known that they were already too wise to learn any thing new. Thus was the whole subject *magnetically* put to sleep, leaving the public totally in the dark respecting the matter, and it would have probably remained in that condition if the Magnet had not thought fit to put it in communication with the facts, thus rendering it perfectly clairvoyant respecting the whole transaction.

The committee were not appointed to prove the truth of Mesmerism by a series of experiments, as that has long since been established to the satisfaction of every man that has made a candid investigation of the facts; and the collection of those facts was the duty devolving upon the committee, which duty they never even made the attempt to perform; thus, by their gross neglect, paralyzing the efforts of the ardent friends of the cause. If there were no other proof of the invincible and unconquerable spirit of truth, the prosperity and progress of Mesmerism under such injudicious management, must have incontrovertibly established the fact.

But, this not being sufficient to put down the science, the celebrated Dr. Hume, (*Hum*(e)-*bug*), who first made his appearance in the city as a kind of Bombastes Furioso of a temperance lecturer; after having disgusted the city with his vulgar wit and drunken caricatures, until he was treated with that neglect and contempt which he so richly merited, found it necessary to change his field of operations — and Mesmerism was too fruitful a field to escape his notice. Being totally ignorant of the matter, it was necessary to gain some knowledge of the *modus operandi* necessary for a public exhibition. He accordingly gave an invitation to a few of the most active and efficient mesmerisers in the city to meet at his room, and bring their subjects, that he might learn them some new experiments. They, good, honest, unsuspicious souls, took the bait, brought their subjects, initiated the Doctor into the mesmeric experiments, and gave him such information as he desired on the subject. The Doctor, of course, was astonished to find that they had investigated the subject so deeply. He had no idea that any one in this section of the country had given it so much attention. He was astonished to find that their experiments were the most satisfactory of any ever performed in the United States.

Being pleased with themselves, they, as a matter of course, were pleased with the Doctor, and agreed to loan him their subjects for public exhibition, and render him what assistance they could.

Every thing now being in proper train, the following announcement appeared in the papers, and was conspicuously posted on the corners of the streets:

"CLAIRVOYANCE.

"*Man turned inside out, or the wonders of organic life exposed.*

"Ladies and gentlemen of St. Louis are respectfully informed that, at the earnest and repeated solicitation of many friends, Dr. Hume will deliver two lectures on the *wonderful subject* of *Animal Magnetism*, accompanied by various experiments in Magnetism, Phrenology, and Magnetic

Vision, or Clairvoyance, in *Concert Hall*, at 7 o'clock, on the evenings of Saturday and Monday, January 25th and 27th.

"Tickets 25 cents — to be had at the office of Dr. Hume, No. 3, second floor, Saint Louis Exchange, and at the door.

"N.B. Special seats for the Medical Profession, to enable them to observe every operation with the utmost facility."

On the appointed evening, a respectable audience assembled, and the Doctor delivered his lecture, which was made up of beautiful extracts from various authors, which, though delivered in very good taste, did not appear to be altogether satisfactory to the audience, for they soon commenced that quiet drumming with their canes and the heels of their boots which would be extremely annoying to any one with less brass than Dr. H.; but he stood it like an old and tried soldier — when it became too boisterous, he gave a specimen of Shakspeare, done up in real dramatic style — tiring of that, he gave them a specimen of the eloquence of Webster, then an Irish story, with the brogue well laid on, and, finally, as a last resource, he gave a few tricks of slight of hand, such as swallowing a dollar, and blowing it through the nose, &c.; but, finding that the audience would not be satisfied with either poetry, logic, blarney, or magic, he brought the lecture to a *close*, which gave unbounded satisfaction, as the experiments were to conclude the evening's *amusement*.

The subject was brought forward, and a few passes made, when he was pronounced to be in a clairvoyant state. His eyes were bandaged, and an examination for disease was made, which was a failure. A phrenological examination was then made, which did very well, but was too general to give satisfaction. Clairvoyant experiments were then tried, and the time told by a watch, but the audience objecting to the watch being passed below the bandage, it was held over the head, when the time was accurately told, which was ten — but the Cathedral clock was just striking. Our opinion at the time, was, that the subject was not in the magnetic state. We are of the opinion that others had come to the same conclusion, as they came forward and took charge of the subject, re-magnetized him, and brought another subject forward, and took charge of the experiments, which it is not necessary to mention, as they were successful and highly satisfactory.

Now, we have nothing to say in respect to Dr. Hume, as he was a humbug by profession; but for men who occupied a position in the first rank — who were looked upon as leaders in the cause of Mesmerism, lending their aid by furnishing subjects, and their countenance, by their attendance upon the lectures, and assistance in performing the experiments, is, to say the least, strange and unaccountable. If their own reputation, only, was at stake, we should not conisder that it concerned us in the least, but when the reputation of the science is involved, it is our duty, as its advocates, to let the censure fall where the fault originated, alike regardless of friend or foe. This is the course that we have marked out, and are determined to follow it independently, without bias or prejudice. If we unwittingly do injustice to any one, we are ready to make amends when we are satisfied of our error.

We have not space to continue this subject in the present number.

CORESPONDENCE.

MESMERISM AMONG THE PURITANS.

FOR THE ST. LOUIS MAGNET.

Dear Sirs:—Noticing in the Magnet some allusion to the superstition of the Catholics in attributing Animal Magnetism to satanic agency, I considered that it was nothing more than fair that some of our good Protestants should come in for their share. If the matter is properly investigated, it will be found that all the superstitious people in our land do not belong to the Catholic church. We live too near Salem for the spirit of witchcraft to have become wholly extinct. The following anecdote is at your service, if you should consider it worthy of a place in your valuable publication. I also send you the names of the parties concerned, also my own, that you may retain them for the satisfaction of any one who should be disposed to doubt the correctness of the statements.

About two years since, when the subject of Animal Magnetism was exciting great curiosity throughout the country, a few

"Inquirers after truth, wherever found,
Whether on Christian, or on heathen ground,"

engaged a gentleman who had been lecturing in the adjoining towns on Mesmerism to deliver them a few lectures. The first evening the lecture room was crowded. After the lecture a number of most interesting and highly satisfactory experiments were given, through an excellent subject, who accompanied the lecturer. Much having been said about his power to examine persons, and determine the character of their disease, and to prescribe remedies, the Doctor of the village requested that he should examine one or two of his patients, to test his ability to find out the diseases with which they were affected. To this the lecturer assented, and the subject was put into communication with a lady, one of the doctor's patients. Without delay, he commenced describing her case, which was a very marked one. After he had finished, the doctor stated that he was correct in every particular. Another lady was then put in communication with the subject, when he became violently agitated, and endeavored to run to the other end of the hall. The magnetizer inquired the cause of this strange conduct. His answer was, that "the lady has been troubled with fits from her childhood, and she will have one very soon, and so shall I, unless you take her into the open air;" and sure enough, the lady had every appearance of just going into a fit, which was prevented by taking her to the open air. I ought to have mentioned before, that no one in the audience, except the doctor himself, had any knowledge of his intention of bringing forward those two persons to be examined, and that during the experiments a double bandage was drawn tightly over the eyes of the subject, thus precluding any chance of deception or collusion. The doctor being questioned, admitted, before the audience, that the complaints of both the patients had been described accurately in every particular, and that such medicines had been prescribed as he should think very well adapted to their complaints. One would suppose that experiments like these would satisfy the most superstitious that the devil could have no agency in the matter; but such was not the case. The majority of the audience, the worthy doctor among the rest, could see no way of explaining these wonders, but by supposing that his Satanic Majesty was immediately concerned in it. The worthy clergyman of the village, who had long been of the same opinion, layed it all to the charge of the old gentleman in black, and suggested that an especial meeting of X the members of the church should be held the following evening, to prevent, if possible, by prayer and other religious exercises, this device of the enemy of souls from exerting any influence on the minds of the good people of Pembroke. And certain it is, that a meeting was held on the appointed evening, and many a fervent prayer offered to the Almighty, that he would expel the devil and one of his imps from among them, who had made his appearance in their midst in the form of a magnetizer and his subject. Since that time I have conversed with the doctor on the subject, but he still held out that it was the work of the devil, and seriously advised me to have nothing to do with it.

Yours, truly, M. B.

Pembroke, Mass., July 20th, 1845.

INDIANAPOLIS, JULY 25th, 1845.

Messrs. Editors:—I am receiving your invaluable paper, which I hope will meet with a welcome reception in all quarters of the West. Information on the subject of Magnetism is all that is wanted to bring the science into high repute in this place. Since I was at your city last Fall, I have been applying myself to the study of the system of Magnetism, and have applied it to a number of chronic diseases, and I have been successful in removing them in almost every instance. I have given it a trial sufficient to satisfy myself that Magnetism will cure diseases that medicine cannot; and, consequently, it is one of the best curative agents ever discovered by man. All that I have done has been done without charge, notwithstanding I have almost raised some from the dead.

Unfortunately, my circumstances will not warrant my devoting my time to the cause without compensation, and I can scarcely get the consent of my mind to give up the practice while there are so many around me whose sufferings I have the means of relieving. I have some of the most influential men in the place with me, and I have no doubt of the success I might meet with in devoting my whole attention to its pratice, but would be glad to counsel with some person who has had more experience in the cause. Any advice you may see fit to give, in relation to making a public business of applying Magnetism to diseases, and the course I had better pursue in general, will be thankfully received by

Your friend, JOHN LISTER.

In reply to our friend, we would say, that we are decidedly of the opinion, that the practice of Mesmerism should be confined to the hands of practical professional men, who make its application their business, and the understanding of the laws by which it is governed their study. Much injury has been done the cause by ignorant and enthusiastic individuals, who, in their zeal, losing sight of facts, have run into many wild vagaries, and adopted fantastic theories, alike revolting to good sense and sound reason. Men of the medical profession appear to be the legitimate hands into which this new discovery should have fallen; but, unfortunately, the great majority of that profession are so wrapt up in self-conceit and vain-glory, that it is impossible for them to learn anything new. They are already too wise to be of any practical utility, and more learning would make them as mad as Festus imagined St. Paul. It therefore appears necessary for men who are willing to devote their entire energies to the cause to step forward and qualify themselves to apply this science for the mitigation of disease; for there can be no doubt that it is destined to prove one of the most powerful agents for the relief of suffering humanity. We are pleased to see men of talent taking hold of this matter with the right spirit; when they do so, success must crown their efforts as certainly as truth triumphs over error.

The qualifications necessary for the application of Mesmerism for the cure of disease are, an anatomical and physiological knowledge of the human system, to enable the operator to effectually reach the seat of the disease, which must be done through the nervous system, the nerves being the conductors of the vital fluid. If any portion of the nervous system is affected, the manipulations should be made from the origin of the nerve affected to its termination. Not understanding this general principle, is the cause of many failures, and the uncertainty with which many look upon the result of mesmeric treatment. It is also necessary to have a knowledge of the agent to be employed, and the analogy between it and Electricity, Galvanism, and Mineral Magnetism, and the general laws by which they are governed. The anology between these different modifications of one common principle is so perfect, that the proper understanding of the one enables us to overcome those difficulties and perplexities which may often arise in the other. Much useful information on this subject is contained in the article on the Magneto Electric Machine and the laws of Galvanism, in this number of the Magnet. These, with a sound judgment for their application to the various cases that may arise, with an accurate knowledge of the nature and symptoms of disease, would be all that is required of the practical mesmerizer.

* * *

THE LOCATION OF DISEASES ELECTRICALLY CONSIDERED.

We learn that two new journals, devoted to the electric, galvanic, and magnetic treatment of disease, are published in the city of New York, under the auspices of societies. They are the "Guide to Health, and Journal of Galvanopothy," edited by J. King, M. D., and the "Herald of Health and Journal of Electro-Magnetic Medicine," edited by an association, and published by N. D. L. Mullison, and A. S. Jones, M. D. The following article is from one of those journals, but as we receive it second hand, we are unable to give the proper credit for it: —

"That the two hemispheres are in different electrical conditions, is a fact well known to scientific men, and it may be easily ascertained by a very simple experiment. Take any unmagnetized bar of iron, and hold it in a vertical position, that it may be magnetized by induction from the earth; now present a compass needle to the lower end of the bar, and the south pole of the needle will point to it, while the north pole will point to the upper end; the ends of the bar may be reversed as often as may be, yet the results will be the same.

In the southern hemisphere, opposite results will follow; that is, the south pole will point to the upper end of the bar, while the north pole will point to the lower; proving the northern hemisphere of the earth to be, at *this present time*, in a negative magnetic condition, and the southern in a positive.

Now it is an immutable law, that the negative force repels the negative and attracts the positive, while the positive repels the positive and attracts the negative. Hence, in the northern hemisphere, when there is an excess of negative matter in the human system, in consequence of its being repelled *upwards* by the negative power of this hemisphere, a predominance of the negative will be found in the upper or superior portion of the body; while in the southern or positive hemisphere it is attracted *downwards* to the inferior or lower extremities of the body.

Consequently, the nearer we approach the north magnetic pole, disease, as a general rule, will be more liable to attack the superior extremities of the body; and the nearer we approach the south magnetic pole, the inferior extremities will be the most liable; while in the equatorial regions, where these electric forces are more equally balanced, disease may attack any part of the body, but more generally the central portions.

In accordance with this we find that in the northern hemisphere, diseases of the scalp, eyes, nose, ears, neck, lungs, head, etc., are the most common; in the southern hemisphere, enlargement of the testes, and of the legs, as elephantiasis, white-swellings of the hip, knees, ancles, etc., are the most common; while in the equatorial regions, the stomach, bowels, liver, spleen, kidneys, etc., are the most subject to disease, and *generally* in proportion to the distance from either of the magnetic poles. It must be borne in mind, however, that disease will sometimes attack organs which are exceptions to this general rule, and which depend upon local electrical influences; thus, as a general rule, the compass needle will point north and south, owing to the magnetic action of the earth upon it, yet any local influence, as a bar of iron, or a magnet, will cause it to deviate from its regular direction; in the same manner may the location of disease be determined by local or planetary electrical influences; such as are, however, comparatively rare. By equatorial regions we understand not above forty-two degrees, at the farthest, north or south latitude.

Thus, then, it will be seen that the electricity of the earth has a powerful action upon disease and its location in the system; and in Consumption, especially when unconnected with an affection of the liver, and where it is deemed advisable to adopt a change of climate, the proper course would be to remove some distance below the equator, not merely for a year or two, but for a permanent residence. Buenos Ayres, or about that latitude, would, undoubtedly, prove the best residence for a consumptive person. Many have been benefitted by going in the immediate equatorial regions, where those forces are more equally balanced, thus giving an opportunity for an equilibrium to become established in the system. Such, however, generally die when they return to the higher latitudes of this hemisphere. Every physician who recommends a change of residence for this disease should insist upon its being permanent.

MEDICAL REFORMER.

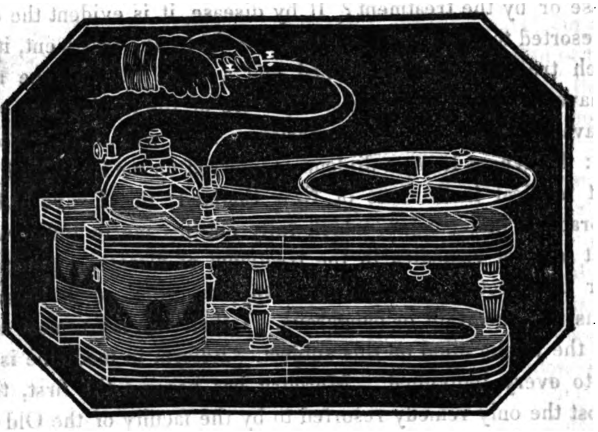
We have received the July number of this ably conducted Journal, devoted to the Reform of Medical practice. That a radical reformation in this department of science is necessary, is becoming every day more evident. Notwithstanding the Old School may kick and squirm; cry humbug and quackery, under the lash of truth so ably applied—still they must bear it, for facts are stubborn things, and the public are becoming enlightened in respect to these matters. The assurance that their friends have been killed scientifically—by rule, or according to the books, will soon cease to be a satisfactory explanation to the bereaved relatives who are left to mourn their loss. A Medical Institute, on the Reformed system, has been chartered by the legislature of Ohio, and goes into operation under flattering auspices, in Cincinnati, this fall. We bid them God speed.

The Reformer is published monthly, at one dollar per annum, by B. L. Hill & Co., Cincinnati, Ohio.

We give the following extract from a correspondent of the Reformer, as his remarks respecting the opposition of the Old School to the Reformed practice are equally applicable to their opposition to the application of Mesmerism as a remedial agent:—

"In these times of peril, when so many cases treated with mercury are terminating fatally, well may we inquire—Are such results caused by disease or by the treatment? If by disease, it is evident the curative agents resorted to are wholly inadequate. If by the treatment, it is high time such treatment was abandoned, and a more rational one adopted. That I have been vilified by those members of the faculty who were the first to avail themselves of my experience, none will deny. To such I will say: I have, at least, a diploma, conferred on me in 1825, by one of the best medical institutions of New England; that I have had twenty years' practice in medicine, which fully entitles me to judge what are and what are not remedies in the treatment of diseases. Such I shall endeavor to select—such I shall always use, discarding those whose operations are uncertain or dangerous. I shall use my utmost efforts to disabuse the public mind on this subject. Reform in medicine is of vital interest to every individual. Mercury has become the first, the last, and almost the only remedy resorted to by the faculty of the Old School. Reform is as essential in the practice of medicine as any of the professions, and perhaps more so; yet the moment any of its members attempt to adopt measures which are not wholly orthodox, however high in his medical attainments, he is instantly discarded, shunned, detested, vilified—every epithet in the universal vocabulary applied to him but that of a gentleman. Are these things right? are they just? is such a course calculated to inspire confidence in the responsible character of the medical profession? are the medical quarrels common amongst us fraught with benefit to the sick? are the high dignitaries of the profession of this city, who not only refuse to meet me in council, or to exchange common civilities, adding laurels to their high medical and scientific attainments by such a course? Let public opinion answer. I have chosen to abandon the use of mercury, because I have learned a substitute: a better and safer remedy, not used by the Old School."

Logansport, July 25, 1845. JOHN F. MERRILL, M.D.



MAGNETO-ELECTRICAL MACHINE.

The discovery of Professor Faraday, that a current of Magnetism would produce electrical effects, and the wonderful and before unknown powers of this science displayed by his experiments, supported as they were by Mr. Forbes, at Edinburgh, who first witnessed the magnetic spark, has shown the intimate connection, if not the positive identity, between Magnetism, Galvanism, and Electricity. The facility with which one is converted into the other has led to the almost universal opinion among philosophers of the present day, that they are different modifications of one general principle. The wonderful effects produced by these changes or modifications has rendered all who have the least pretense to class themselves with the scientific, anxious to witness the spark, shock, decomposition of water, deflagration of metals, and rotary motions produced by the magnet only, independent of that chemical action always attending Galvanism. The machines capable of accomplishing this are called Magneto-Electrical, of which there is a great variety, as Clark's, Wagstaff's, Saxon's, Sturgeon's, Bachhoffner's, Pikes, &c. The above cut represents one, the construction and invention of which is claimed by Daniel Davis, philosophical instrument maker, Boston.

It is composed of two compound magnets, each consisting of four common horse shoe magnets of great power, one placed horizontally above the other, about three inches apart, connected by brass pillars. The poles of one of the magnets are reversed, so that the north pole of one is over the south pole of the orther.

Between the poles of the magnets stands the mandril, or spindle, spindle, in a perpendicular position, with a pully on the upper end, which is connected by a belt to the multiplying wheel, which is seen at the other end of the machine. Attached to the mandril are two coils of fine insolated copper wire three thousand feet in length—the centre of each coil contains some fifty or sixty iron wires. These coils are attached to the mandril by a belt of thin hoop iron, which passes around them, and is fastened to it by a bolt. This iron hoop answers to the armiture in Clarke's and Pike's machines. The commencement of each helisus, or coil, is attached to the armiture and spindle, and the termination to two pieces of brass which compose the break pieces, insolated with ivory. Attached to the cups with which the wires are connected that are held in the hand are four springs, which are so arranged that when the machine is put in motion they form and break the magnetic circle twice in every revolution. The machine, when put in motion by turning the multiplying wheel, to which is attached a crank, will cause a person holding the handles as represented in the cut to feel a quick succession of shocks, which can be increased or diminished at the pleasure of the operator, by varying the velocity of the machine. It is to be observed, that the effect takes place only at the moment when the magnetic circle is formed and broken, and for this reason it is not the fluid contained, or rather disturbed, in the battery itself which passes through the coil of wire; but in Magnetism, as well as in free Electricity, when one body is charged it influences and fresh arranges the fluid with which those bodies in its neighborhood are charged. Thus, the whole latent fluid in the coil is disturbed at the moment of contact with the battery, and to produce a constant succession of such disturbances an equal rapid breaking and forming again of the magnetic circle is necessary. This, it will be perceived, is easily accomplished with this machine by the arrangement of the springs on the break piece. The effects produced by the machine are of two kinds: one effect arises from the quantity of the fluid excited or put in motion; the other is not according to quantity, but intensity. Increasing or diminishing the number or size of the magnets increases or diminishes the power of the machine, or adding to the coil or increasing the velocity of the motion increases the intensity of the action; consequently, a machine of great power is required where a number of individuals are to be acted upon at the same time, as a portion of the power is expended upon each person; but as the intensity of the action allows of no modification from this source, those of less power and greater intensity are much better adapted for medical purposes, as they possess sufficient power for one individual, while the intensity of the action is under the control of the operator.

The following laws of Galvanism are according to Professor Grantham, of England, and will be found worthy the attention of every medical practitioner, most especially those who use the Electro-Galvanic battery or the Magneto-Electrical machine, as these apparatus must be used in harmony with the laws of the fluid which they excite into action, otherwise injury may be produced instead of good; at least, no beneficial effects would result from their use. Even in using Mesmerism, the same information is requisite to successful operations. Hence, when those laws are studied and understood, we will be prepared to explain why Mesmerism is frequently unsuccessful in the hands of the unskilful operator, or, in other words, those operators who are unacquainted with every physiological principle pertaining to the human system. It must soon be understood and known, that the mesmeric power will require as much physiological knowledge as any other practice which has ever been wielded.

1st. Galvanism is identical with the vital action of the nerves of organic life and the nerves of volition.

2d. Its action is determined by the healthy condition of the brain and spinal marrow.

3d. The brain must possess a normal sensation as well as temperature, before the galvanic action can affect the muscular fibre.

4th. The positive plate, or pole, should be applied over the region of the organ or nerve diseased, and the negative to the termination of the nerve.

5th. The galvanic influence, when passed along the spine, will be most active in the paralyzed limb.

6th. Galvanism is assisted by the alkalies and mercurial action.

7th. It restores diminished temperature, decreased circulation, and muscular action in the following order: 1, temperature; 2, circulation, and, lastly, muscular action.

8th. It has no effect in disease which alters the structure of the nerves.

9th. It supersedes manual friction, and in most cases the mesmeric passes.

10th. It is assisted by immersion of the effected limb in a warm bath, into which the negative pole should be placed. In passing the current from the head through one-half of the body, the foot should be immersed in warm water.

11th. It is injurious when great pain is caused in the muscles by its application.

12th. It may be carried to an undue extent, which would tend to produce congestion of the brain.

Every thing is for use, and good in its place, when judiciously applied, but it is equally true, that there is no principle in nature, however simple or complicated it may be, which is not liable to produce bad results when wielded by ignorant or designing persons. Patients should therefore know into whose hands they resign their lives and their health. It is a very mistaken notion into which many have fallen, and one from which much injury must result, that men unacquainted with the laws of the imponderable agents of nature, can play with lightning in any of its modified forms, as boys do with kites. Professor Grantham has very ably alluded in these laws, to the identity of electricity, galvanism, magnetism, and even mesmerism, or animal magnetism. This is very easily done by showing with what facility one is converted into the other, and that they all possess similar qualities, and produce like effects — one being merely a modification of the other. What a host of error this must correct in medical practice, as well as in mechanical operations, when it becomes generally and practically understood! How many hitherto insolvable difficulties in the arts and sciences will be brushed away with the facility of a fog before the powerful rays of the morning sun! With what ingenuity have physicians tasked their brains to keep the public in ignorance in respect to medical practice; and at the same time make themselves appear wise by assuming a dignity supported only by high-sounding titles, with an unqualified abuse of every progressive improvement calculated to make innovations upon their rotten and already tottering fabric! How long will the credulous public thus resign their stomachs, a repository for poisonous nostrums and drugs, alike destructive to health and aggravating to disease? When will people learn to think for themselves, and judge of causes from their effects?

All disease originates in the nervous system. This is admitted by all practitioners, and cannot otherwise be, for there is neither sensation, motion, nor life, in the animal economy, save through the nervous system. Therefore, laying aside all medical science, common sense should teach us, that those remedies which may be applied immediately to the source of the derangement, must be most effectual in removing the cause of the disease. And, how can this be otherwise, when we know no effect can be produced upon any organ of the body save through the nervous system? The old school practice is to throw their drugs into the stomach, leaving chance to direct them to the diseased organ, thus involviing the healthy organs in the general catastrophe, as all medicines thrown into the stomach when in healthy action, produce disease, by this means distributing the disease through the whole system, to enable nature to overcome and conquer the enemy in detail, which withstood all her efforts, when concentrated and fortified in a single point. But experience teaches us that as the diseased organ is relieved by this general distribution, and approximates a healthy action, the whole system proportionably sinks towards the diseased state of that organ, and a general debility is the consequence. If the patient possesses sufficient vital action to throw off this effect, a radical cure is effected; but, unfortunately, in a majority of instances, this is not the case; though raised from his sick couch, disease is left lurking in his system; his constitution feeble and broken, exposed to fresh attacks from every point; each relapse being more complicated and virulent in its character. The miserable victim thus being destined to drag out a miserable existence in this novel contest between death and the doctors!!! But it will be perceived by referring to the laws of Magnetism, and the magneto-pathic system of treating disease, that the remedy may be applied immediately to the origin of the disease, thus leaving the healthy organs to perform their functions unmolested. When this is duly considered, the remarkable cures which have been performed through the agency of magnetism, animal or mineral, whether by means of the manipulations, or the magneto-electrical machines, will cease to be a wonder. We copy the following from the New York Dissector:—

ALOPACIA—*loss of hair, baldness.* The effects of the magnetic forces in producing the most rank vegetation from the earth, suggested their employment in the production of a luxuriant vegetation from the skin, which has been found perfectly successful.

Among the cases in which magnetic machines have been used for this purpose, is that of a gentleman who having lost every hair from his head, commenced magnetising it with one of our vibrating instruments, in February last, and, on the first of June, had already cut two heavy crops of hair from his head!

APOPLEXY.—The magnetic machine reduces the apoplectic state in a more safe and powerful manner than any other means that have been heretofore adopted.

ULCERATED LEGS AND VARICOSE VEINS.—Nothing can be compared to the action of the magnetic machine in these cases, or in acute or chronic diseases of the skin.

PROLAPSUS UTERI.—*atonic.* These cases from feebleness or debility are quickly restored by the action of the instrument, or by the mesmeriser. In cases, however, which are the consequence of tubercular disease of the uterus, the remedies for chronic tuburcula are required to aid the action of the instrument.

MAGNETIC SLEEP.—There are now a great many persons who have gone into the magnetic sleep, under a very slight but steady action of the magnetic machine, some of whom have been clairvoyant. These facts, with the increased susceptibility to mesmeric influence by the action of the instrument, are strong evidences of the identity of the influences from these different sources.

LIFE OF A PLANT.

The ripe seed, when put into the ground at the proper season of the year, soaking up the moisture around it, throws downwards a *radicle*, or young root; then there rises upwards the *plumule*, or future stem, bearing upon it the two lobes of the seed. These expand, become green, and furnish the plants with nourishment, till the roots increase, and it gets young leaves of its own. The stem shoots upwards, and is furnished with buds, which throwing out leaves and branches, the whole becomes a perfect plant, capable of fixing itself, and taking up moisture by its roots, growing towards the light by its stem, and decomposing the air around it by its leaves. The various organs it now has, conspire to produce flowers; these expand, delighting us by their fragrance and their beauty. The stamens become ripe; their anthers burst, and scatter the pollen with which they are stored; this is taken up by the stigma, and conveyed to the young seeds, which are thereby endowed with the power of growth. The parts of the flower, being no longer useful, fall away, while the seed increases in size and perfection, until at last, when thoroughly ripe, the parent plant either dies, or becomes dormant until the warmth of a future season again calls it into a vigorous and renewed existence.

During the progress of these various developments, many curious phenomena present themselves to our notice. The sap, or moisture, passes upwards and downwards through the veins, or sap-vessels; it is exposed to the air at the leaves and flowers; and it deposits in its course wood, resins, gums, starch, sugar, and numerous other products. One part becomes green, another pink, a third white, yellow, or brown; one yields a fragrant oil; another a nauseous drug; one becomes a nutritious vegetable, another a virulent poison. Some plants have a natural provision against drought, others by their shape remain uninjured by either wind or rain; some open their flowers only when the heat of the day is past, while many more expand their petals, and elevate their heads only at the light of the sun, closing them again, and folding them carefully up at the approach of rain or of night. This is called the *sleep of plants*, and is in many instances so regular in its recurrence, as to indicate the time of the day.

"Thus in each flower and simple bell,
That in our path untrodden lie,
Are sweet remembrances which tell
How fast their winged moments fly."—SMITH.

Plants may pass through the various stages of their existence in a few weeks or months; such as these are called *annuals*. Others spring up, grow, and produce their conservative organs one year, and their flowers and fruit the next—these are *biennials;* while trees, shrubs, and many herbs are *perennial*, that is, of many years' growth, increasing continually in majesty, utility, strength, and beauty.

But these, no less than their most fleeting companions, must at last arrive at the same termination; and although all are equally without the sense of feeling to appreciate the changes that constantly take place, yet plants are liable to many privations and casualties which might be thought to appertain alone to animal creation. Plants live and grow, though they cannot move; they select and take their food, though they have no mouth; their food digests, though they have no stomach; they breathe, yet without lungs; they sleep, yet know not that it is night; they have a natural heat and fluid circulation, yet without a heart; they are benumbed by frost, revivified by warmth; are killed by poison and by deprivation of nutriment; grow plethoric by superabundance; become more vigorous by stimulants, and during the whole period of their existence are subject to injury, disease, and death.

TO PHYSICIANS.

Jacob Blattner. an ingenious mechanic of this city, has just completed for us a Magneto-Electric machine of great power and beauty, fully demonstrating that apparatus of this character can be as well and cheaply constructed in St. Louis as in New York or Boston. He is also prepared to fill orders for the rotary or vibrating electro-galvanic machine, equal in every respect to Pike's, for three dollars less than New York prices. Orders for any of the above machines will be promptly filled by forwarding orders to Mr. Blattner, No. 17 North Second street, or to the Magnet office. We will pay especial attention to all orders forwarded to this office, that the apparatus is complete and perfect in every particular.

Prices.—The magneto-electric can be furnished from $35 to $50; the vibratory or rotary electro-galvanic from $14 to $20, according to the size and power that may be desired.

Dr. J. B. Dodds.—We have received a circular containing serious charges against the moral character of this gentleman; but as the circular is anonymous, and the charges of some twenty years' standing, we feel disposed to suspend our judgment respecting the matter until we gain more definite information.

THE
SAINT LOUIS MAGNET.

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PHILOSOPHY OF SLEEP.

Having, in a preceeding number, given our readers some of the facts and reasons upon which we base our belief in respect to Clairvoyance, we shall now call their attention, in a brief manner, to the philosophy of sleep, both natural and mesmeric. It is not necessary to bring forward a long array of facts to prove that the state of being called mesmeric sleep does exist. No individual, who makes any pretensions to keeping pace with the developments which are daily and hourly taking place in the arts and sciences, doubts that a person may be put to sleep by the process of magnetizing. This has become too rational and conclusive, to leave a doubt upon the mind of any candid and reasoning individual. Natural sleep takes place in accordance with a rational cause,—which is the difference between the electrical state of the atmosphere and the animal body; there being a greater quantity of the electric fluid on the side of the globe which is illuminated by the sun, than there is on the opposite side;—hence we are naturally inclined to sleep at night. The action of the rays of light through the atmosphere excites the electric fluid into action, and the atmosphere becomes more highly charged through the day than it is through the night. The human body gradually becomes of an equilibrium with the surrounding atmosphere, and by evening would become equally charged. The human body, is then positive — night immediately succeeds, and the atmosphere becomes negative. Hence, the body is more densely charged with electricity than the atmosphere, and we are consequently less animate, and sleep follows as a natural consequence of this sudden reaction, which occurs as alternately as night succeeds day.

The atmosphere is then *positively* charged through the day and *negatively* charged through the night — the human body is *negative* through the day, and *positive* throughout the night. Upon this principle the magnetic fluid passes from the atmosphere into the nerves throughout the day, and from the nerves to the atmosphere throughout the night, keeping up a constant action and reaction, by means of which the law of equilibrium is maintained.

Hence, we perceive when the magnetic *forces* are passing from surrounding nature to the brain, animation, locomotion, perception, reason, &c., is the result; but when these *forces* are passing from the brain to surrounding nature, suspended animation, perception, reason, &c., is the result.

The vegetable kingdom is similarly governed by the same law of nature. The cause of the different states in which plants exist, during day and night, has never been satisfactorily solved. That there is a perceptible difference, all botanists agree, as well as the most common observer of the works of nature. That these differences are effects, the result of causes operating in nature, must be acknowledged by every candid mind. It is evident that nature possesses a universal stimuli, by means of which, animation is produced and sustained. It is further evident that the sun has much to do with its operations, as it governs nature in these changes. All nature rises to animation with the sun, and sinks to rest as it sinks beneath the western horizon. Hence, this stimuli of nature being excited into action during the day, by the action of the sun, plants, as well as animals, are aroused into a state of activity, which developes their growth, their physical and their mental powers. The want of this action of the sun diminishes the action of this stimuli through the night, and plants and animals sink into repose — their fibres become relaxed, and they are weighed down as if the sustaining principle which kept up their energy was suspended, and torpor, or sleep, the result.

These facts being known, sleep, natural or artificial, is no longer a mystery; and must soon be as well understood as any other principle of cause and effect in nature.

We shall now return to the position from which we have apparently digressed, and solve the problem of awaking. The fluid in the nerves having been reduced during the night to an equilibrium with the atmosphere, the atmosphere being again illuminated by the rising sun, it is evident that the fluid in the atmosphere will be more dense than it is in the nerves. Hence, we will awaken by the sudden reaction which takes place in the system, which is produced by the returning of the magnetic fluid from the atmosphere to the nerves.

Believing this to be the true solution of natural sleep, we now feel prepared to enter understandingly into the philosophy of artificial sleep, or the mesmeric state. Having become acquainted with the philosophy of natural sleep, it requires no great stretch of the understanding to comprehend that of the mesmeric. If our readers' organizations will permit them to reason from analogy, the problem is already solved, with the exception that in the mesmeric there is a mental action,—a moral *force*,—operating in conjunction with the different electrical states of the body, as compared with surrounding nature.

One person sits down, a *passive object*; a second places himself in contact with the *passive object* as an *active agent*, holding his mind intently upon the *passive object*. The aura of the nervous system, or the magnetic fluid, being under the control of the will, (which we shall prove in a succeeding article), is put in motion, directed and accumulated upon the *passive object*, by the determined will of the actiʌe agent. The body of the *passive object*, who soon becomes more densely charged than that of the active agent, or any other object with which he is surrounded. Hence, we find that *artificial sleep* is the effect of a rational cause, and upon the same principle as that of natural sleep.

Again, it is admitted that heat expands, and that cold contracts, matter. By laying quiet upon our beds, there is a coolness steals over the brain; this coldness contracts the nervous substance, which continues gently to shrink until it presses upon the living fluid which it contains, and stops its motion. That instant all thought ceases. This living fluid is known by different names, as aura, nervous fluid, magnetic fluid, or living galvanism.

Mind is that substance whose nature is living motion; and the result of that motion is thought, reason, understanding, &c.

By pressure, by force, its motion is stopped, and thought ceases until the force is removed. This theory is sustained by experiments made on the living brain, where the scalp and skull-bone have been removed, and pressure applied to the dura matter, or external membrane. Richerand reports a case in which he made experiments of this kind. A lady, who by an accident received an injury on her head, which caused the removal of the scalp and skull-bone: when the patient lay in dreamless sleep, the brain sunk motionless within the crania; but when her mind was disturbed by dreams, the brain resumed its motion in proportion to the vividness of her dreams. When awake, and in sprightly conversation, the brain would protrude without the skull. In this condition, Richerand placed his finger on the dura matter, causing slight pressure,—the patient instantly ceased her conversation. The pressure being removed, she resumed the conversation where she left off.

Such experiments sustain our position that contraction of the brain takes place in sleep, and expansion in wakefulness. This accounts for the fact, that a person cannot sleep soundly of a very sultry night, or when the mind is very actively employed: each expands the nervous substance, which leaves the mind free and active. When our rest is complete, and the magnetic fluid commences to flow from the atmosphere to the nerves,—a warmth steals over the brain,—the nerves expand,—leave the mind disengaged; it resumes its living motion, and thought, reason, &c., is the result. Now, as cold contracts the nerves, and as heat expands them, we alternately sleep and wake under this double action. The mind is, therefore, a living, self moving, indivisible substance, capable of being sufficiently compressed to prevent its motion.

MESMER MESMERIZED.

DR. MESMER AND HIS EARLY EXPERIMENTS IN MAGNETISM.

ANTHONY MESMER was a native of Austria, and studied medicine in the University of Vienna. He was always remarkable for a dreamy, imaginative turn of thought, and was indefatigable in his application to study. At a very early age he obtained the degree of Doctor, and in his inaugural thesis he introduced the hypothesis of a fluid, which he first termed *electric*, and subsequently denominated *magnetic*. In a short time, the young doctor began to attract public attention in Vienna, where many regarded him as an inspired physician, a learned *illuminato*—in short, he became an enthusiastic magnetizer, and the most miraculous cures were attributed to him. The faculty of Vienna, annoyed at the praises bestowed on Mesmer's alleged skill, began to manifest their disapproval of him, by declaring him a quack, and a disgrace to the medical profession. After a time, Mesmer lost the popularity he had so rapidly gained in Vienna; he was no longer regarded as a regular University Dr,, but as an empiric or a madman. This was only a few months prior to his triumphal visit to Paris, where the establishment of the Mesmerian School speedily raised him from poverty to wealth; where he was revered like an ancient oracle, and worshipped as an almost divine benefactor of the human race.

Meanwhile, the opposition which Mesmer encountered during the latter months of his abode in Vienna, served only to confirm the young enthusiast's faith in his own theories; and an incident which occurred on the Prater, in the presence of a considerable number of persons, had the effect of restoring some portion of his lost popularity. Mesmer was walking beneath the shady trees of the promenade, apparently forgetting for a while, the hallucinations which occupied his hours of study and solitude. His impatience was evident. He stamped his foot on the ground angrily, then stopped short, and cast a searching glance among the groups of promenaders. He had all the air of a lover suffering under disappointed expectation, and tortured by the absence of a mistress, at the time and place of rendezvous. And Mesmer was a lover; he was deeply enamoured of a lady — a lady of high rank — one to whom he had never spoken, but whom he saw every day, either in the umbrageous avenues of the Prater, or on the grassy bank of the Danube. He now looked for her in vain.

Mesmer was wending his way homeward, in the moody feeling naturally created by this disappointment, when suddenly turning through one of the thick clusters of trees which adorn the Prater, he beheld a young female seated on the grass. She was very pretty, but pale, and evidently suffering under the langour consequent on protracted illness. Her dress, though neat and becoming, betokened poverty. Mesmer, struck with her appearance, stopped and fixed his eyes earnestly upon her. The young lady modestly cast down hers, but continued to sit motionless as a statue. A sudden thought flashed through the mind of Mesmer; the genius of occult science moved him with inspiration, and he resolved to mount the tripod of the oracle.

Advancing towards the young female, and gently taking her hand, he said, "You seem to be ill, Fraulein?" "I am," she replied, in a faint tone of voice. "I am a doctor," replied Mesmer, "and if you are disposed to follow my directions, I think I might assist your recovery; whilst you, in your turn, may render me a very great service." "How?" inquired the young woman, with an expression of astonishment. "Merely by remaining seated where you are, and looking stedfastly in my face." The girl timidly raised her eyes, and fixed them on the countenance of Mesmer, who stood gazing at her with a look which seemed to absorb her inmost thoughts and feelings. He then passed his hands repeatedly over her forehead, her face, and her arms, first with a gentle undulating motion, and afterwards with a rapid, jerking movement. The eyes of the patient closed and opened again several times, as if struggling against the subduing force of the fascination. She seemed to suffer from the influence of mental anguish, for she sighed deeply, and tears rolled down her cheeks: but this sadness was merely transient. A bright smile presently lighted up her features, — her head fell back, and she sunk into a gentle slumber. It was a magnetic sleep! — the sleep of somnambulism!

But this was not enough for Mesmer, to whom magnetism was a valuable phenomena, only as far as it tended to excite and produce in the magnetized subjects other phenomena and still greater prodigies — viz: clairvoyance, spiritual vision, and ecstacy.

"What are you thinking of?" inquired Mesmer, addressing his subject.

"I am thinking," answered she, hesitatingly, "of the anxiety you suffered this evening."

"You know, then, that I was looking for something on the Prater?"

"I know that you were looking for some *person*."

"Can you tell me where he is at this moment?"

"I can tell you where *she* is."

"Well, then, where is she?"

"Stay — no — no — I cannot — I do not see quite clearly."

"Look again — very far away, perhaps. Endeavor to see, for I much wish to know where the young lady is."

"Ah!" exclaimed the somnambulist, "now I see her! she is in the Imperial Theatre."

A prolonged murmur of surprise, mingled with expressions of incredulity and admiration, was heard among the crowd of promenaders who had by this time gathered round Mesmer, but of whose presence he had hitherto been unconscious, so intently were his thoughts occupied with the experiment in which he was engaged.

The magnetizer awakened his subject, and hurried away to the Imperial Theatre, where he passed the remainder of the evening, his eyes being turned from the stage, and directed toward the box where was seated the lady ever in his thoughts.

A short time after this scene, which chance rendered in some degree public, a messenger knocked at Dr. Mesmer's door, and requested his immediate attendance on a young lady, who was dangerously ill, and who entertained the conviction that he alone could cure her. He immediately hastened to the patient, in whom he recognized the young female who he had seen on the Prater.

It was at the latter end of autumn, a season when invalids wither with the leaves. Margaret had been given over by the physician who had previously attended her. She appeared to be in the last stage of illness, and her sorrowing relatives were looking for her death. Nevertheless, Mesmer felt an inward confidence that he should save her.

He every day submitted the patient to magnetic influence, and while so doing, he performed miracles, at which he was himself astounded. Whilst in the mesmeric sleep, the patient afforded the most extraordinary evidences of mental vision, accurate clairvoyance, and lucid ecstacy.

Along with these prodigies, an improvement, scarcely less miraculous, was wrought in the patient's health. Her feeble frame acquired strength—her languid spirits became buoyant. Before, she was merely pretty—she had now become strikingly beautiful. She had imbibed a new life, like that of the winged butterfly, when it bursts from the torpid chrysalis, Margaret now felt that she lived, or rather she experienced, for the first time, the enjoyment of existence.

This rapid and unlooked for recovery was a two-fold triumph to Mesmer. To have saved the life of a young and beautiful woman, was naturally gratifying to the feelings of the man, whilst the phenomena disclosed during the magnetic treatment, were not less deeply interesting to the physician, who aspired to found a new school of medical science. He felt grateful to the patient, who had been instrumental, though unconsciously, in converting to his theories, many of those who had previously avowed unbelief or scepticism. By degrees, gratitude ripened into a more tender feeling, and at last Mesmer began to discover that the presence of Margaret tended to banish the remembrance of the high-born dame who once held his heart captive.

About this time, he was agreeably surprised by the receipt of a letter, announcing to him the probable return to Germany of an uncle, who had realized a handsome fortune on colonial speculations. The uncle had no heir, and there seemed little reason to doubt that his return to Europe would be the means of raising his nephew from poverty to affluence, or at least to independence. He rejoiced at this circumstance, chiefly because it would enable him to confer some adequate reward on Margaret, who, like himself, was poor. Nevertheless, he carefully concealed from her knowledge the hopes raised by the letter he had received from abroad.

At the appointed hour he went to pay the daily visit to his patient, who still continued under mesmeric treatment. As soon as sleep was produced, the phenomena of clairvoyance presented itself.

"Oh! how delighted I am," exclaimed the somnambula, in her magnetic ecstacy; "your rich uncle has left Surinam, and is returning to Europe."

"My uncle returning?—who told you so?"

"Nobody! But I see him now. He has just embarked on board the Statholder. The weather is fine—the wind favorable. How the sails fill! What a glorious sea! What a brilliant sky! The vessel glides over the sea like a bird!"

Suddenly Margaret paused, her radiant brow was contracted by a movement of surprise and grief. A cloud of inquietude semed to over-spread her countenance. She looked anxiously forward, and stooped down, as if to see more distinctly; then seizing Mesmer's hand, she murmured — "What a terrible change! A storm has gathered. Hark, how the thunder rolls! Oh! what a conflagration — what flames! There is not in the sea water enough to quench them! Stay! the fire is sinking beneath the waves — it is no longer visible! But where is the ship? It has vanished! Nothing is discernible but sky and water!"

A few weeks after the Mesmeric vision, intelligence was received at the Hague, announcing the loss of the Dutch brig Statholder, which was struck by lightning, and had foundered.

Mesmer's attachment to Margaret was becoming daily more and more confirmed. He regarded her as a triumphant evidence of the truth of his theories and his science. No consideration on earth could have induced him to separate from her. In his eyes, she was a magical creation of his genius; and in restoring her to life and health, he had endowed her with beauty and intelligence. Thus, Mesmer heard, not without a severe pang of regret, that it was the intention of Margaret's parents to quit Vienna, and to retire to their native village, some leagues distant. Margaret was, of course, to accompany them: but she had said nothing of this intended removal to Mesmer. "This is strange," thought he; there must be some secret which she wishes to conceal from me — I must endeavor to discover it."

He guessed rightly: there was, indeed, a secret; and in one of her mesmeric trances, Margaret disclosed it in the following manner: —

"When do you propose to depart," said Mesmer, addressing the somnambula.

"Whenever I feel that I have sufficient courage to go."

"Will it, then, require much courage to depart?"

"More than you will require in parting from me."

"How so?"

"Where you remain you will love some one; where I am going I shall love no one."

"But then, on the other hand, Margaret, every one who knows you will love you! What would you say, supposing I were to go and live in the village to which you are about to remove?"

"Alas! that might prevent me from going thither."

"Then you think our separation indispensable! Why so?"

"Because our eternal union is impossible."

"And if your absence should render me unhappy?"

"Then I will return."

"Will you stay, if I declare I love you?"

Whilst he was uttering these words, Margaret awoke, and found Mesmer on his knees at her feet, passionately gazing on her, and holding her hand in his.

Shortly afterwards they were united in marriage. Madame Mesmer accompanied her husband in his visits to various parts of Europe.

She died while they were travelling in Switzerland, in the year 1806, and was interred in the churchyard of Franenfeld, in the canton of Thurgan. To that place Mesmer himself retired in his latter days; and died there in 1815—His ashes repose in the same grave with those of his beloved wife; and a humble monument marks that grave.—*Eng. Mag.*

MAGNETIC DEVELOPMENTS.

The following article, by Edgar A. Poe, was originally published in the Columbian Magazine. We copy it from the American Phrenological Journal, with the subjoined remarks of the Editor, O. S. Fowler, and would recommend our readers to peruse it attentively, as it will be found to contain the elements of much thought.

It will at once be perceived, that the philosophical portion of the revelation agrees with the philosophy of mesmerism, as now understood and taught by the believers in the science.

That there is an imponderable agent, or invisible fluid, pervading all matter, and that this agent is God, is the sublime doctrine of the Bible, giving majesty and force to its teachings; placing it on an eternal and immutable basis, which gives it such superiority over heathen mythology. It is true that God is called a spirit in the sacred volume, to distinguish Him from tangible gross matter. This led to a grievous error. Theologians, not comprehending the various and almost imperceptible gradations of matter, from its grossest forms to its most etherial, and from its most etherial to its grossest, pronounced this spirit to be *immaterial*, a nonenity —*nothing*, controling, governing, and giving motion, sensation, reason, &c., to *something!* An absurdity so palpable in any doctrine could but elicit opposers, and many and well contested have been the battles fought, for no other reason than that neither party understood the terms in which God has revealed himself. Pope seems to have caught the idea, and expresses it in this beautiful couplet:—

"All are but parts of one stupendous whole,
Whose body nature is, and God the soul."

But St. Paul teaches the doctrine more explicitly: "God is all and in all, and without him there is nothing." If without him there is nothing, how absurd to say that this immateriality, this nonenity, is God! Absurd? Yes! more; it is impious!

In introducing the article, Mr. Fowler remarks —

"Of one thing, however, the Editor is fully satisfied, namely, that a correct knowledge of *God* lies at the foundation of all correct knowledge of any thing and every thing. We must *first* know the *mode* of the being of God, in order to know his works; and as all science is but a delineation of these works, we must *know God* before we can comprehend science, or successfully prosecute its study. An atheist cannot be truly scientific; nor can a bigot. Dismissing both sectarian bigotry on one hand, and atheism on the other, we must, in order to understand either the operations or the laws of Nature, *first* comprehend the being of her and our AUTHOR. Neither are now fully understood; as is evident from the *conflicting* notions respecting them generally entertained. Truth is one, and all who are in the truth, will see *eye to eye*, and *face to face*. And when the true light *does* arise, and appear to men generally, all will, all *must*, see it, and see it *alike*. Not that the Bible does not reveal it; but such revelation is not generally understood.

"The idea more particularly intended here is this: In order to arrive at a correct knowledge of Nature, we must begin *at the beginning*, and that beginning is GOD. Fully to know *Him*, is to know all about Nature; is to know *universal science;* for is there *any* knowledge which does not appertain to that which He has made and done? In what consists a knowledge of Chemistry, or Geology, or Natural History, or Botany, or Astronomy, or Anthropology, Phrenology, Physiology, Anatomy, and Magnetism, included; but in a knowledge of the various departments of his work? Even a knowledge of history, news, human nature, moral philosophy, &c., are but a knowledge of the constitution of man, and what he has done with or by means of such constitution. I repeat, therefore, "A knowledge of any, or of all, science, is but a knowledge of the *works* of God," and, therefore, of his *Character and Attributes*; for what better knowledge of the character, attributes, power, &c., of any being can be had than that furnished by a knowledge of his works? Are the works of any man (as are those of Colt, the gun inventor,) *destructive* in their designs and legitimate effects, we correctly infer, that his *character* is also destructive, and so it is. Are they promotive of happiness, we argue correctly, that his character is benevolent. Are they all wise, perfect in plan and operation, we infer correctly his possession of Causality, in just that proportion in which his works evince this quality.

Are they beautiful and perfect, we argue therefrom that he, too, is perfect, and that exquisite beauty pervades his character. And thus, if they evince mechanism, or mechanism which involves causation, or mechanism directed to the greatest good of the greatest number, or mechanism full of perfection, of causation, of beauty, general happiness, &c., all united. Thus Nature is but a transcript of its AUTHOR. And the true study of that Author, is in the study of its works, not separately from the study of its Author, but as a *part* — the *main inducement* of such study. Religion and science are twin sisters — we mistake — are *husband and wife* — "ONE BONE AND ONE FLESH." The Schoolmaster and the Divine should be both *one and the same person*. This separating religion from science has engendered that sectarianism which bears the *name* of religion, without being the *thing*. Nor can those sectarian vagaries, which this division has engendered, be cured by that *re-union* of divinity and science here contended for. This idea runs through the Editor's works, and deepens as they proceed. He therefore *urges* it upon his readers; and quotes this article, if, perchance, it shall lead inquiring minds to ruminate on this subject — the being and character of a God.

"It may with propriety be added, that the views and character of God here presented, are identical with those given by Mrs. Woodcock, of Haverhill, Mass.; a clairvoyant of great merit, though little known, and now probably in a higher state of being. Still, these go much further into the *rationale* of this matter than she did.

"The Editor may be allowed to add, as man is the highest piece of divine architecture extant, the study of man — and, as the studies of Phrenology, Physiology, and Magnetism embody the *science* of such study, of course the whole of these sciences — will reveal more of the being and the character of a God than the study of all nature besides. But they must be studied *religiously* — with the earnest desire of thereby learning the great lesson of DIVINITY, which embodies all lessons and all truth. Touching the perfection of man's nature, and the extent of his capabilities, we have much to say in another place.

"Suffice it at present to say, that the following was written by Edgar A. Poe, a man favorably known in the literary world; so that it may be *relied* upon as authentic. Its mere literary merit, the reader will perceive, is by no means inconsiderable. Read and re-read."

MESMERIC REVELATION.—BY EDGAR A. POE.

Whatever doubt may still envelope the *rationale* of mesmerism, its startling *facts* are now almost universally admitted. Of these latter, those who doubt are your mere doubters by profession — an unprofitable and disreputable tribe. There can be no more absolute waste of time than the attempt to *prove*, at the present day, that man, by mere exercise of will, can so impress his fellow as to cast him into an abnormal condition, whose phenomena resemble very closely those of *death*, or, at least, resemble them more nearly than they do the phenomena of any other normal condition within our cognizance; that, while in this state, the person so impressed employs only with effort, and then feebly, the external organs of sense, yet perceives, with keenly refined perception, and through channels supposed unknown, matters beyond the scope of the physical organs; that, moreover, his intellectual faculties are wonderfully exalted and invigorated; that his sympathies with the person so impressing him, are profound; and, finally, that his susceptibility to the impression increases with its frequency, while, in the same proportion, the peculiar phenomena elicited are more extended and more *pronounced*.

I say that these—which are the laws of mesmerism in its general features—it would be supererogation to demonstrate; nor shall I inflict upon my readers so needless a demonstration to-day. My purpose, at present, is a very different one indeed. I am impelled, even in the teeth of a world of prejudice, to detail, without comment, the very remarkable substance of a colloquy, occuring not many days ago between a sleep-waker and myself.

I had been long in the habit of mesmerizing the person in question, (Mr. Vankirk), and the usual acute susceptility and exaltation of the mesmeric perception had supervened. For many months he had been laboring under confirmed phthisis, the more distressing effects of which had been relieved by my manipulations; and on the night of Wednesday, the fifteenth instant, I was summoned to his bedside.

The invalid was suffering with acute pain in the region of the heart, and breathed with great difficulty, having all the ordinary symptoms of asthma. In spasms such as these he had usually found relief from the application of mustard to the nervous centres, but to-night this had been attempted in vain.

As I entered his room, he greeted me with a cheerful smile; and although evidently in much bodily pain, appeared to be, mentally, quite at ease.

"I sent for you to-night," he said, "not so much to administer to my bodily ailment, as to satisfy me concerning certain physical impressions which, of late, have occasioned me much anxiety and surprise. I need not tell you how sceptical I have hitherto been on the topic of the soul's immortality. I cannot deny that there has always existed, as if in that very soul which I have been denying, a vague, half sentiment of its own existence. But this half sentiment at no time amounted to conviction. With it my reason had nothing to do. All attempts at logical inquiry resulted, indeed, in leaving me more sceptical than before. I had been advised to study Cousin. I studied him in his works, as well as in those of his European and American echoes. The "Charles Ellwood" of Mr. Brownson, for example, was placed in my hands. I read it with profound attention. Throughout I found it logical, but the portions which were not *merely* logical, were unhappily the initial arguments of the disbelieving hero of the book. In the summing up, it seemed evident to me that the reasoner had not even succeeded in convincing himself. His end had plainly forgotten his beginning, like the government of Trinculo. In short, I was not long in perceiving that if man is to be intellectually convinced of his own immortality, he will never be so convinced by the mere *abstractions* which have been so long the fashion of the moralists of England, of France, and of Germany. Abstractions may amuse and exercise, but take no hold upon the mind. Here upon earth, at least, philosophy, I am persuaded, will always in vain call upon us to look upon qualities as things. The will may assent—the soul—the intellect, never.

"I repeat, then, that I only half felt, and never intellectually believed. But latterly there has been a certain deepening of the feeling, until it has come so nearly to resemble the acquiescence of reason, that I find it difficult to distinguish between the two. I am enabled, too, plainly to trace this effect to the mesmeric influence. I cannot better explain my meaning than by the hypothesis that the mesmeric exaltation enables me to perceive a train of convincing ratiocination—a train which, in my abnormal existence, convinces, but which, in full accordance with the mesmeric phenomena, does not extend, except through its *effect*, into my normal condition. In sleep-waking, the reasoning and its conclusion—the cause and its effect—are present together. In my natural state, the cause vanishing, the effect only, and perhaps only partially, remains.

"These considerations have led me to think that some good results might ensue from a series of well directed questions propounded to me while mesmerized. You have often observed the profound self-cognizance evinced by the sleep-waker—the extensive knowledge he displays upon all points relating to the mesmeric condition itself; and from this self-cognizance may be deduced hints for the proper conduct of a catechism."

I consented, of course, to make this experiment. A few passes threw Mr. Vankirk in the mesmeric sleep. His breathing became immediately more easy, and he seemed to suffer no physical uneasiness. The following conversation then ensued. V. in the dialogue representing Mr. Vankirk, and P. myself.

P. Are you asleep?

V. Yes—no; I would rather sleep more soundly.

P. (*After a few more passes.*) Do you sleep now?

V. Yes.

P. Do you still feel a pain in your heart?

V. No.

P. How do you think your present illness will result?

V. (*After a long hesitation, and speaking as with effort.*) I must die.

P. Does the idea of death afflict you?

V. (*Very quickly.*) No—no!

P. Are you pleased with the prospect?

V. If I were awake I should like to die, but now it is no matter. The mesmeric condition is so near death as to content me.

P. I wish you would explain yourself, Mr. Vankirk.

V. I am willing to do so, but it requires more effort than I feel able to make. You do not question me properly.

P. What then shall I ask?

V. You must begin at the beginning.

P. The beginning! but where is the beginning?

V. You know that the beginning is GOD. [This was said in a low fluctuating tone, and with every sign of the most profound veneration.]

P. What then is God?

V. (*Hesitating for many minutes*) I cannot tell.

P. Is not God spirit?

V. While I was awake I knew what you meant by "spirit," but now it seems only a word—such, for instance, as truth, beauty—a quality, I mean.

P. Is God immaterial?

V. There is no immateriality—it is a mere word. That which is not matter is not at all, unless qualities are things.

P. Is God, then, material?

V. No. [This reply startled me very much.]

P. What then is he?

V. (*After a long pause, and mutteringly.*) I see—but it is a thing difficult to tell. (*Another long pause.*) He is not a spirit, for he exists. Nor is he matter, *as you understand it.* But there are *gradations* of matter of which man knows nothing; the grosser impelling the finer, the finer pervading the grosser. The atmosphere, for example, impels or modifies the electric principle, while the electric principle permeates the atmosphere. These gradations of matter increase in rarity or fineness, until we arrive at a matter *unparticled* — without particles — indivisible — *one;* and here the law of impulsion and permeation is modified. The ultimate, or unparticled, matter, not only permeates all things, but impels all things — and thus *is* all things within itself. This matter is God. What men vaguely attempt to embody in the word "thought," is this matter in motion.

P. The metaphysicians maintain that all action is reducible to motion and thinking; and that the latter is the origin of the former.

V. Yes: and I now see the confusion of idea. Motion is the action of *mind* — not of *thinking.* The unparticled matter, or God, in quiescence, is (as nearly as we can conceive it) what men call *mind.* And the power of self-movement (equivalent in effect to human volition) is, in the unparticled matter, the result of its unity and omniprevalence; *how*, I know not, and now clearly see that I shall never know. But the unparticled matter, set in motion by a law, or quality within itself, is thinking.

P. Can you give me no precise idea of what you term the unparticled matter?

V. The matters of which man is cognizant escape the senses in gradation. We have, for example, a metal, a piece of wood, a drop of water, the atmosphere, a gas, caloric, light, electricity, the luminiferous ether. Now we call all these things matter, and embrace all matter in a general definition; but, in spite of this, there can be no two ideas more essentially distinct than that which we attach to a metal, and that which we attach to the luminiferous ether. When we reach the latter, we feel an almost irresistible inclination to class it with spirit, or with nihility. The only consideration which restrains us is our conception of its atomic constitution; and here, even, we have to seek aid from our notion of an atom, possessing an infinite minuteness, solidity, palpability, weight. Destroy the idea of the atomic constitution, and we should no longer be able to regard the ether as an entity, or, at least, as matter. For want of a better word, we might term it spirit. Take, now, a step beyond the luminiferous ether — conceive a matter as much more rare than the ether, as this ether is more rare than the metal, and we arrive at once (in spite of all the school dogmas) at a *unique* mass — at unparticled matter. For although we may admit infinite littleness in the atoms themselves, the infinitude of littleness in the spaces between them is an absurdity. There will be a point — there will be a degree of rarity, at which, if the atoms are sufficiently numerous, the interspaces must vanish, and the mass absolutely coalesce. But the consideration of the atomic construction being now taken away, the nature of the mass inevitably glides into what we conceive of *spirit.* It is clear, however, that it is as fully *matter* as before. The truth is, it is impossible to conceive spirit, since it is impossible to imagine what is not. When we flatter ourselves that we have formed its conception, we have merely deceived our understanding by the consideration of infinitely rarefied matter.

P. But, in all this, is there nothing of irreverence? [I was forced to repeat this question, before the sleep-waker fully comprehended my meaning.]

V. Can you say *why* matter should be less reverenced than mind? But you forget that the matter of which I speak, is, in all respects, the very "mind" or "spirit" of the schools, so far as regards its high capacities, and is, moreover, the "matter" of these schools at the same time. God, with all the powers attributed to spirit, is but the perfection of matter.

P. You assert, then, that the unparticled matter, in motion, is thought?

V. In general, this motion is the universal thought of the universal mind. This thought creates. All created things are but the thoughts of God.

P. You say "in general."

V. Yes. The universal mind is God. For new individualities, *matter* is necessary.

P. But you now speak of "mind and matter," as do the metaphysicians.

V. Yes—to avoid confusion. When I say "mind," I mean the unparticled or ultimate matter; by "matter," I intend all else.

P. You were saying that "for new individualities matter is necessary."

V. Yes; for mind, existing unincorporate, is merely God. To create individual, thinking beings, it was necessary to incarnate portions of the divine mind. Thus man is individualized. Divested of corporate investiture, he were God. Now, the particular motion of the incarnated portions of the unparticled matter is the thought of man; as the motion of the whole is that of God.

P. You say that, divested of the body, man will be God?

V. (*After much hesitation.*) I could not have said this; it is an absurdity.

P. [Referring to my notes.] You *did* say that "divested of corporate investiture, man were God."

And this is true. Man thus divested *would* be God—would be unindividualized. But he can never be thus divested—at least never *will* be—else we must imagine an action of God returning upon itself—a purposeless and futile action. Man is a creature. Creatures are thoughts of God. It is the nature of thought to be irrecoverable.

P. I do not comprehend. You say that man will never put off the body?

V. I say that he will never be bodiless.

P. Explain.

V. There are two bodies—the rudimental and the complete; corresponding with the two conditions of the worm and the butterfly. What we call "death," is but the painful metamorphosis. Our present incarnation is progressive, preparatory, temporary. Our future is perfected, ultimate, immortal. The ultimate life is the full design.

P. But of the worm's metamorphosis we are palpably cognizant.

V, *We*, certainly—but not the worm. The matter of which our rudimental body is composed is within the ken of the organs of that body; or, more distinctly, our rudimental organs are adapted to the matter of which is formed the rudimental body; but not to that of which the ultimate is composed. The ultimate body thus escapes our rudimental senses, and we perceive only the shell which falls in decaying from the inner form; not that inner form itself; but this inner form, as well as the shell, is appreciable by those who have already acquired the ultimate life.

P. You have often said that the mesmeric state very nearly resembled death. How is this?

V. When I say that it resembles death, I mean that it resembles the ultimate life; for the senses of my rudimental life are in abeyance, and I perceive external things directly, without organs, through a medium which I shall employ in the ultimate, unorganized life.

P. Unorganized?

V. Yes; organs are contrivances by which the individual is brought into sensible relation with particular classes and forms of matter, to the exclusion of other classes and forms. The organs of man are adapted to his rudimental condition, and to that only; his ultimate condition, being unorganized, is of unlimited apprehension in all points but one—the nature of the volition, or motion of the unparticled matter. You will have a distinct idea of the ultimate body, by conceiving it to be entire brain. This it is *not;* but a conception of this nature will bring you near to a comprehension of what it *is.* A luminous body imparts vibration to the luminiferous ether. The vibrations generate similar ones within the retina, which again communicate similar ones to the optic nerve. The nerve conveys similar ones to the brain; the brain, also, similar ones to the unparticled matter which permeates it. The motion of this latter is thought, of which perception is the first undulation. This is the mode by which the mind of the rudimental life communicates with the external world; and this external world is limited, through the idiosyncrasy of the organs. But in the ultimate, unorganized life, the external world reaches the whole body, (which is of the substance having affinity to the brain, as I have said,) with no other intervention than that of an infinitely rarer ether than even the luminiferous; and to this ether—in unison with it—the whole body vibrates, setting in motion the unparticled matter which permeates it. It is to the absence of idiosyncratic organs, therefore, that we must attribute the nearly unlimited perception of the ultimate life. To rudimental beings, organs are the cages necessary to confine them until fledged.

P. You speak of rudimental "beings." Are there other rudimental thinking beings than man?

V. The multitudinous conglomeration of rare matter into nebulæ, planets, suns, and other bodies which are neither nebulæ, suns, nor planets, is for the sole purpose of supplying *pabulum* for the idiosyncrasy of the organs of an infinity of rudimental beings. But for the necessity of the rudimental, prior to the ultimate life, there would have been no bodies such as these. Each of these is tenanted by a distinct variety of organic, rudimental, thinking creatures. In all, the organs vary with the features of the place tenanted. At death, or metamorphosis, these creatures, enjoying the ultimate life, and cognizant of all secrets but *the one*, pervade at pleasure the weird dominions of the infinite.

As the sleep-waker pronounced these latter words, in a feeble tone, I observed upon his countenance a singular expression, which somewhat alarmed me, and induced me to awake him at once. No sooner had I done this, than, with a bright smile irradiating all his features, he fell back upon his pillow, and expired. I noticed that in less than a minute afterward his corpse had all the stern rigidity of stone.—*Columbian Magazine.*

MEDICAL CASES.

CLAIRVOYANT EXAMINATION OF A PATIENT BY MR. ACRE.—*Disease:—Intermittent Fever of the Congestive type.*—The patient feels great oppression in the region of the stomach, with difficulty of breathing, and severe pain in the small of the back. The derangement in the stomach is very great, producing deathly sickness. Fever very high, which lasts from four to six hours in twenty-four, preceded by a slight chill. The principal cause is a very morbid state of the liver, which has thrown a quantity of biliary matter into the blood, impeding the circulation, causing congestion of the stomach, heart, and lungs; producing great difficulty of breathing.

REMEDIES:—First, five grains of calomel, added to ten grains of Dover's powders. In five hours after, give one tea-spoonful of finely pulverized mandrake root. (*Podophyllum Peltatum.*) One hour after this is given, prepare a medicated bath of bitter herbs, over which the patient should be steamed; at the same time let the patient drink freely of warm herb tea. The patient should have her feet well bathed every evening, in hot water made caustic with sal-soda. The extremities being well rubbed with a coarse cloth. The following tonic may be given after the above prescription has been complied with. One oz. peruvian bark, (*Cinchona Officinalis*), half do. ginseng, half do. colombo root, (*Menispermum Palmatum*), one drachm cloves, two do. cinnamon, one do. Dover's powders, one quart best port wine. This tonic may be given in small doses at first, and gradually increased to half a wine glass full, as the patient increases in strength.

There probably never was a more happy result following a course of treatment than there was in this instance. The patient was dangerously ill. No person could have anticipated her recovery. The extremities were cold, and the patient was fast sinking under the destroying energies of the disease. This examination was made at two o'clock, P. M., and at four, two hours after, I commenced and gave the medicine as directed by the somnambulist. At two, A. M., I left the patient free from pain, perfectly easy, and without the least symptom of disease lurking in her system. Respiration being now free and easy, the patient, after a very mild application of the magneto-electrical machine, fell into a gentle slumber, from which she awoke much refreshed, complaining of nothing save weakness. The application of the magneto-electrical machine, with the use of the tonic prescribed by the somnambulist, very soon restored the patient to more than her usual health, which had been rather on the decline for some months previously.

I have practised with somnambulists in a great number of critical cases, and have ever found them correct, when properly mesmerized, and judiciously managed. Many still continue to treat somnambulic revelations with contempt, but, fortunately for truth, a laugh or a sneer is not argument. It will finally be found much easier to test truth by experiments, than to discard it by ridicule. Truth ever has, and ever must, triumph, however it may be retarded by the ignorant, selfish, and unprincipled part of community.

In concluding these remarks, we cannot say too much in favor of the use of the magneto-electrical machine, which is described and illustrated by an engraving in the preceding number of the Magnet. We have used it for several weeks in our practice, in which time we have successfully applied it to a great number of diseases; a few of which we may give for the satisfaction of our readers, and the benefit of the afflicted.

In Chill and Fever we have pretty thoroughly tested its virtue. We have applied it while the patient was shaking with the ague, which removed the chill in a few minutes, and produced perspiration. With the aid of a little medicine, and where the system was considerably deranged, too, we have not known the chill to return in a single instance. In Neuralgia, (*Tic Douloureux*,), we have applied it successfully. The case was a severe one, and had resisted every other treatment. It was thoroughly removed in some five applications of the machine. A spinal affection, which prevented the use of one leg, was effectually removed in less than two weeks. This case had been treated for a length of time by one of the first physicians of the city, without any beneficial result. A child of some three years of age, having its lower extremities paralyzed, so as to be perfectly helpless, is gradually improving under its application. The spinal column was materially affected just below the lumber vertebræ, producing much pain in that region, and rendering its legs useless. The pain and irritability in the spinal column is principally removed; the back is becoming quite strong; the child can now be handled and moved about, without causing pain or uneasiness; and the lower extremities are gradually gaining strength; leaving no doubt in my mind as to its restoration in a few weeks more. In cataracts of the eye, the machine is a very powerful remedial agent, and is successfully used in Europe for the removal of that critical disease, which has hitherto so generally baffled the skill of the physician. We have one case under treatment, and one of long standing, which is happily improving.

In head-ache, tooth-ache, pleurisy, &c.; finally, we have never applied it, in a single instance, where there was pain present, without giving instant relief. We have one remarkable case of chronic rheumatism, which beautifully displays the power of this machine as a remedial agent. A gentleman, from Illinois, placed himself under our care some weeks ago, whose case was certainly a very hopeless one. The legs and arms were drawn to angles of between forty-five and fifty degrees; the joints fixed and useless; and the flesh principally wasted away. In this hopeless condition of the patient we commenced the application of the machine, and, we must say, we have been agreeably disappointed at the remarkable improvement which has been produced in so short a time. The pain is principally removed, the joints are becoming pliable, and the legs and arms are nearly straight, and, in every other particular, the health of the patient is good, and only requires a little time to correct and strengthen the knee joints, to place him upon his feet, and restore him to his anxious family, in health, prepared once more to enjoy life's sweet existence and its pleasures. I might enumerate a great number of other cases in which we have either applied this machine advantageously, or are now applying it, producing the best results. It is thought by many that it will only prove to be advantageous in nervous diseases. This we will grant, provided they will admit the obvious fact, that there is no disease, strictly speaking, that is not nervous. Independent of the nervous system, there is neither sensation, motion, nor life; and without life there can be no disease.

We have never applied this machine, in a single instance, in which benefit has not been received and mostly acknowledged; and how can it be otherwise, when it never fails to restore diminished temperature, and equalize the circulation.* In every case of disease the circulation must be more or less deranged, and its equalization must always prove beneficial. For the practical application of this machine, we would advise our readers to peruse Dr. Sherwood's manual, published in New York, and for sale in this city, price sixty-two cents.

Any orders with which we may be favored, for the Magneto-Electrical Machine, Savage Rotary Magneto Machine, or Vibrating Magneto Machine, together with Dr. Sherwood's Manual, will be promptly attended to.

[FROM THE KENNEBEC JOURNAL.]

SUCCESSFUL APPLICATION OF MESMERISM TO A SURGICAL OPERATION.

Mesmerism, or animal magnetism, is attracting, at the present day, no inconsiderable and unimportant part of attention and investigation from all classes of the community, in both hemispheres. It finds advocates and opponets among the learned and illiterate, the profound and superficial, philosophers and physiologists. By many its power and influence are doubted; by some denied, and by others derided as imposture. Whilst a cautious remove from that credulity which would swallow with avidity the most ridiculous absurdities, deserves the highest commendation, that scepticism which closes every avenue to conviction, and discards a belief in facts without investigation because the human mind cannot comprehend them, merits reprobation. Our present knowledge of its nature and power is confined to narrow limits, and the discovery is a goal yet to be reached by some future voyager, that is subject to the same universal laws that govern matter. To the future belongs the development of its destiny; to the present, scrutinizing investigation into its concealed mysteries. Suffice it for my present purpose, to narrate facts presented to my own observation, without entering the broad field of hypothesis, or ascending into the regions of fiction; to relate, in brief and simple phrase, one benign visitation of this incomprehensible agent, which, like an angel of mercy from the skies, bore on its mission not only comfort and consolation, but entire immunity from the pain and torture attendant on a severe surgical operation.

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* See the laws of Galvanism, by Professor Grantham, of London, in the preceding number of the Magnet.

As the object of this communication is simply to report the fact that animal matter has been disintegrated without pain and without the knowledge of the patient, the particulars relating to the nature and progress of the disease will not be necessary.

Miss Cromett, the well known subject of the operation, which has excited a large share of curiosity and interest in this place, possesses an exalted nervous temperament, with the least possible share of fortitude and firmness; acutely sensitive to painful impressions, aggravated at the time by an accumulation of morbid nervous irritability.

When first advised by her physician, that incision was the only remedy to arrest the disease and stay the advance of death, so repugnant was the remedy to her feelings, that she avowed her preference for the latter alternative, rather than submit to the torture of the knife.

In this state of painful anxiety and suspense three months elapsed, adding vigor to the disease, at the expense of the patient's welfare. Representations of the dangers of delay, of the certainty of a fatal termination, remonstrance and persuasion, were alike impotent to overcome her opposition and dread of the operation. At this critical juncture, some friend advised and aided her in procuring the services of Dr. Josiah Dean, of Bangor, an experienced and successful operator in Mesmerism. He came, remained five days, and favorably succeeded in magnetically subduing the patient. Untoward circumstances at this time forbade the operation, and a short delay was recommended for the removal of local inflammation.

After an interval of ten days, the local disease beginning to assume a more inauspicious aspect, Dr. Dean was again called in on June 28th, but owing to some adventitious illness, prudential considerations recommended a delay until July 3d, at 10 A. M, when the tumor, involving the whole of the right breast, was removed by Dr. H. H. Hill, of this village, in presence of Dr. Hubbard, of Hallowell, Drs. Snell, Briggs, Myrick and Nichols of this place, Rev. Mr. Burgess, of the Episcopal church, J. L. Child, Esq., counsellor at law, Mrs. Smith, and some other ladies.

The urgent solicitation of the patient prevailed over the concealment previously determined on, and she was apprised on the day previous of the hour appointed for the operation. Notwithstanding her fancied fortitude forsook her, so irresistible was the power of magnetism, that in about ten minutes she was beyond the control of fear, and secure from the influence of pain.

The operation was performed by two incisions, measuring, on the line of curvature, 12 inches each, the whole enlarged gland removed, (weighing two and a half pounds,) the arteries secured, the wound carefully examined, the surfaces brought into apposition, and partly secured by sutures, without a motion, a groan or a sigh, or even the most remote indication of pain or sensibility. It would have appeared to an observer, "that life itself was wanting there," had not respiration given assurance the spirit had not departed.

At this period, when a few more stitches would have completed the whole operation, the mesmerizer unintentionally permitted his attention to be withdrawn from the patient, when she awoke to the consciousness of having passed an ordeal without a pang, which, without the oblivion of magnetism, would have severely tried the fortitude of the firmest, and have convulsed with the keenest agony every fibre that had been reposing in softest slumber. The acute sensibility to pain betrayed by the introduction of the remaining stitches, would, I think, convey conviction to the mind of the most obdurate disbeliever, that such a result could be produced by no art of legerdemain, nor by ony other known agent.

The circulation was slightly accelerated, the respiration natural, and an entire freedom from the faintness, exhaustion and prostration so often attendant an severe corporeal suffering.

The facilities furnished by this quiescent state essentially aided the operator in abbreviating the time usually required in such operations. The writer was present during the whole process, has visited and conversed with her since, and up to this date (July 9th) she has been rapidly convalescent, having been visited by no secondary hemœrrhage, no inflammation, pain, sleeplessness, nor disquietude, and with better health than the last two months have afforded.

AUGUSTA, July 9th, 1845.

The case of Miss Cromett, above described, fell under our observation, and the material facts are truly stated.

H. H HILL,	JOHN HUBBARD,
ISSACHAR SNELL,	CYRUS BRIGGS,
HENRY L. NICHOLS,	LOT MYRIKC.

Having been present during a part of the operation, and had an opportunity to verify the facts above stated, I have no hesitation in certifying to their accuracy.

July 9, 1845. JAMES L. CHILD.

CLAIRVOYANCE.

TO THE EDITOR OF THE TRIBUNE:

Dear Sir:—There is in this place a Clairvoyant, Jackson Davis, whose wonderful powers have for a long time astonished many of our citizens. This young man is eighteen years of age, is uneducated, and has resided here for the last six years, and is very generally known.

What is perfectly astonishing is, when in the clairvoyant state, he is complete master of the general sciences, such as physiology, pathology, anatomy, geology, hydrology, phrenology, astronomy, medicine, &c. He is conversant with all these sciences, distinctly points out their fundamental truths, and exposes their incidental errors. He has spoken, also, in as many different languages, and, whilst in that state, is able and willing to give instruction on any subject which will be of benefit to mankind. He has already explained many phenomena in nature which the learned have been unable to fathom, such as, for instance, the cause of the *variation of the Magnetic Needle.*

Of late, he has given us four lectures on Animal Magnetism. The theory of Magnetism, as given in these lectures, is entirely new, and beautiful beyond description. He shows, in a clear and lucid manner, that Mesmerism is a science, and that all its phenomena are accounted for on natural principles, thus removing all the mystery in which the subject has been shrouded, and completely reversing all former theories which have been put forth; and he has given Mesmerism a new name, expressive of this fact—that of "*Clairmativeness.*"

Within the last twelve months, this young man has examined and prescribed for upwards of a hundred persons, and has restored them to health.

Very respectfully, yours, GIDEON SMITH,
POUGHKEEPSIE, Feb. 16, 1845. Pastor of the First Universalist Society.

A NEW KIND OF LIGHT.—A new mode of procuring light has been communicated to the French Academy of Science, which is to obtain and use the spirit resulting from the distillation of wood. Four parts o this spirit are to be mixed with one part of essence of turpentine.

THE

SAINT LOUIS MAGNET.

Vol. 1. SAINT LOUIS, NOV. 1, 1845. No. 7.

GREENLAND.

English antiquarians are pursuing interesting inquiries relative to the original settlement of Greenland, and the character of its soil and climate. It was supposed originally to have been connected with our continent, but it has been distinctly ascertained that it is separated from the American continent by a wide channel, called Davis' Straits, and extends beyond 78 degrees of latitude. The most extraordinary fact about Greenland is the wonderful change of climate it has undergone. Barren soils have been reclaimed by immigration and industry, and cold climates changed into warmer latitudes by clearing the woods and letting in the rays of the sun; but we have no instance on record of settlements originally in warm climates and fruitful soils, becoming, in centuries, cold, and barren—and yet such has been the case with Greenland. The country, although now consisting of little else than barren rocks, mountains covered with snow and ice, and valleys filled with glaciers,—although its coast, now lined with floes of ice, and chequered with icebergs of immense size, was once easily accessible, and its soil was fruitful, and well repaid the cultivator of the earth. This country was discovered by the Scandinavians towards the close of the tenth century, and a settlement was effected on the eastern coast in the year 982, by a company of adventurers from Iceland, under the command of Eric the Red. Emigrants flocked thither from Iceland and Norway, and the germs of European enterprise and civilization appeared on different parts of the coast. A colony was established in Greenland, and it bade fair to go on and prosper. That the climate must have been mild and the soil fruitful, we gather from the fact that in 1400 there were not less than 190 villages, 12 parishes and 2 monasteries, and for 400 years there was constant and profitable mercantile intercourse with the Danish provinces and Europe, but in 1406 every thing changed—a wall, or ice barrier, arose along the whole line of coast, and no landing could be effected, and up to the seventeenth century, the whole approach to the country was blocked by insurmountable barriers of ice—vegetation was destroyed, and all vestiges of its former inhabitants are gone — parts of houses, churches, &c., remain, but the inhabitants have all perished by cold. One of our contemporaries, in referring to the gloomy subject, says: — "It would require no very vivid imagination to imagine the appalling sense of destruction, which bleached the features and chilled the hearts of those unhappy colonists when they began to realize their forlorn condition; when the cold rapidly increasing, and their harbors became permanently blocked with icebergs, and the genial rays of the sun were obscured by fogs — when the winters became for the first time, intensely rigid, cheerless and dreary — when the summers were also cold, and the soil unproductive — when the mountains were no longer crowned with forests, but covered with snow and ice throughout the year, and the valleys filled with glaciers — when the wonted inhabitants of the woods and the waters were destroyed or exiled by the severity of the weather, and their places perhaps supplied by monsters of a huge and affrightful character.—*The New York Sun, March 8th, 1845.*

A solution of the mystery of the extraordinary changes of climate, in which the people of Greenland flourished in one period, and became extinct in another, is found in the revolutions of the magnetic poles and lines of no variation and maximum declination. These poles and lines perform a revolution round the earth in 666 years, and produce and mark the lines of the greatest cold, while the lines of maximum declination, 90 degrees east of these lines, in the different hemispheres, mark the lines of the greatest heat in the different latitudes.

The line of no variation, which is now 37 minutes west of Pittsburgh, passed over London in 1657, and over the meridian of the City Hall, New York, in 1791. The line of maximum declination, which is now 90° 37' *west* of Pittsburgh, passed over the meridian of that city in 1623, and the one which is now 90° 37' *east* of Pittsburgh, passed over London in 1820. These lines are therefore moving from east to west, and the heat increasing on the east, and decreasing on the west side of the line of no variation.

The cold is conseqently increasing in Europe, and the heat increasing in this country, east of Pittsburgh, and from a line drawn on the 1st of January, 1845, from a point 3 degrees, 34 minutes, 55 seconds east of St. Augustine, Fa., in latitude 29 degrees 48 minutes, 30 seconds north, and longitude 77 degrees, 54 minutes, 37 seconds west; to a point 7 minutes and 51 seconds east of Ashtabula, on lake Erie, in latitude 41 degrees, 52 minutes north, and longitude 80 degrees 47 minutes 57 seconds west of London.

These lines are at an angle of 6 degrees, 27 minutes, 33 seconds with the terrestrial meridians, and the line of maximum declination which passed over London in 1820, is now, or was on the 1st of January, 1845, 10 degrees, 52 minutes, 55 seconds west of that meridian, on that parallel of latitude. Its longitude in the arctic circle; (latitude 66 degrees, 32 minutes, 27 seconds); which passes through the southern part of Greenland, was at the same time, 14 degrees, 47 minutes, 7 seconds west. In latitude 70 degrees, 15 degrees, 30 minutes, 30 seconds; and in latitude 80 degrees, 18 degrees, 18 minutes, 57 seconds west. On drawing a line on a globe through these latitudes and longitudes, it will be found to pass through the eastern and middle part of Greenland, where the mean heat, in that country, is now at its maximum, and the following table will show the position of the lines of maximum declination in every 333 years from the commencement of the Christian era to the year 2178, or during the time the sun is passing through one sign of the Zodiac, and also the situation of the magnetic pole and lines of no variation in every 333 years of the intermediate periods.—⋈ represents the pole and line of no variation, and =⋈ the pole and line of maximum declinations.

Christian Era,		0	Obliq. Eclip. 23° 45'		
		16½	—⋈	180°	West.
		166½			
333	=	183	=	90°	East.
		166½			
	—	349½	—⋈		
		166½			
333	=	516	=⋈	90°	
		166½			
	—	681½	—⋈	180°	W.
		166½			
333	=	848	=⋈	90°	E.
		166½			
	—	1013½	—⋈		
				—	1073
		166½			
333	=	1180	—⋈	90°	W.
		166½			
	—	1345½	—⋈		
				—	1406
		166½			
333	=	1512	=	90°	E.
		166½			
	—	1678½	—⋈		
				—	1739
		166½			
333	=	1845	=⋈	90°	W.
		166½			
	—	2011½	—⋈	180°	W.
		166½			
333	=	2178	=⋈	90°	E.

It appears from the above table, that in the year 1013 1-2, the magnetic pole in the arctic circle was in the same longitude as the line of maximum declination is in at the present period, and the cold was at its maximum in that latitude. This was 28 years after the first settlement of Greenland by Eric the Red.

It also appears that from the year 1073, when the climate may have become mild and the soil fruitful, to the year 1406, when the whole coast was closed by ice barriers, was 333 years. From 1406 to 1739 was 333 years, when the ice barriers gave way, and the climate again became mild, and the soil began to be fruitful. The first period, it will be seen from the positions of the pole and line of maximum declination, was that of heat, in which the colony flourished, and the second that of cold, in which it perished.

The historical evidence relative to the maratime enterprises, and voyages of discovery made by the northmen, at periods correspoding to those of the maximum and minimum temperature of this region from this cause, is highly interesting and corroborative. Thus we find that in the year 1000, but 13 1-2 years prior to the arrival of the pole in the longitude of Greenland, 14 degrees 47 minutes west, Lief Ericson, son of Eric the Red, commenced a voyage of discovery to the south, and landed at various places on the eastern shores of this continent, to which he gave the names of Hallu-land, Maryland, and Vinland, supposed to be respectively Newfoundland, Nova Scotia, and the coast of New England, whence he returned with timber and grapes. Two years subsequently, in 1002, Thorwold, brother of Lief, made a voyage to Vinland, or Vineland, and was killed by the Indians, together with eight of his crew. The survivors lingered until the year 1004, in the vain hope of effecting a settlement, but were so harassed by the natives as to be induced to return to Greenland in the Spring of the ensuing year. In the course of the next six or eight years, several other expeditions were attempted, and appear to have been rendered abortive from the same cause. A long interval in the prosecution of this enterprise seems to have then ensued, and it is not until the year 1347, or more than 333 years from the date of the first recorded expedition, that we find it again resumed. At this period, however, the cold had again become exceedingly severe, from the arrival of the magnetic pole on the same meridian, although 180 degrees of longitude distant, and on the opposite point of the arctic circle to the one which it had occupied 333 years previous. This return of cold probably furnished the strong impulse of necessity for the new expedition in search of the more genial climate, of which record and tradition had preserved memorials; for the cold had become so intense, and the ice had so formidably accumulated, by the year 1406, as to create an insurmountable barrier of icebergs along the whole coast, gradually destroy the inhabitants, and leave their 190 villages desolate. The coast thus remained ice-bound, and the country inacessible to explorers, until the year 1739, or about 50 years after the magnetic pole had again passed that meridian on its westerly quadrature of revolution. It was then that the desolation of the country, and the melancholy relics of its former prosperity were discovered, and a new colony established. In the present year, 1845, the descendents of these new colonists are enjoying the most genial climate of which their latitude admits, the pole being distant 90 degrees to the west, and the line of maximum declination in their midst. Their next cold period will be in the year 2011 1-2, when the pole will be 180 degrees west, coincident with their meridian of longitude as it was in 1345 1-2, but the cold will be less intense than it was in 1678 1-2, when its effects were so destructive and exterminating, because it will then be more distant from them in latitude, by the whole diameter of the arctic circle, or 46 degrees 56 minutes; and this truly awful and intolerable epoch of maximum cold will not return to them until the year 2344 1-2, or 666 years from the year 1678 1-2, when the pole will again be present, in all its horrors.

Similar changes of climate occur in all other latitudes in the same periods, although in a milder and less remarkable degree, in proportion as countries approach the equator. In the year 1780, so memorable for the intensity of its winter, the magnetic pole was on the meridian of the city of New York, and being also on the proximate side of the arctic circle, the cold was greater than it had been for the previous 666 years, or than it will be again for the same period to come. The whole bay of New York was frozen over, so as not only to be traversed by sleighs, but to admit of heavy cannon being taken on the ice, down through the Narrows, and across the lower bay to the shore of New Jersey. Since that time the average temper of our winters has been growing milder, and will continue to do so until the year 1967 1-2, when the magnetic needle in this city will have acquired its maximum westerly declination, or, in other words, when the line of maximum declination will be on this meridian. In the meantime, though very temporarily, our Springs may be rendered fickle and chilly in temperature, by the breaking up of the ice, on the northeast coast of Europe, where that line is present on its course to the westward, and by the consequent passage of large fields of ice off our coast, on their way to the southward. Since this line, however, like the line of minimum declination, or no variation, crosses the terrestrial meridians at an angle of 6 degrees 28 minutes, (nearly), it follows, that countries situated in more southern latitudes, will receive their periodical meliorations and deteriorations of temperatuee later than those in higher latitudes; and consequently, the winters will be increasing in severity, in Florida, Louisiana, Alabama, and all other regions which have now an easterly declination of the needle, while they are diminishing in severity in this and higher latitudes of this continent where the declination is increasing westerly.

In short, the temperature of all countries and climates is absolutely subservient to the following law, however it may have been overlooked by meteorologists and previous writers on the subject — viz: Where the declination of the magnetic needle is increasing, the average cold is decreasing; and where the declination is decreasing, the average cold is increasing. In briefer terms, the average temperature increases and decreases with the declination of the magnetic needle.

In Europe, where the westerly declination is decreasing, the cold of winter, as we learn from the unanimous report of the foreign journals, is sensibly increasing, and it will continue to do so, until the eastern half of the great circle of no variation, now in the East Indies, and 9 degrees west of Pekin, shall arrive in Europe, and the declination there is diminished to Zero, preparatory to its becoming easterly.—*New York Dissector.*

CHEMICAL ACTION.

If, when two different substances are mixed together, they have no tendency to unite, and their constituent principles remain unchanged, they are said to have no affinity for each other, and their union is mechanical; but when the properties of either or both become changed, the mixture is chemical, or, in other words, they are said to have been chemically combined in consequence of an attraction or affinity that exists between them.

Ex. 1. *Chalk and Water unite mechanically.*— Put some pounded chalk in a glass of water; stir it up, and it will soon settle unchanged at the bottom of the glass again, the mixture being mechanical.

Ex. 2. *Chalk and Vinegar unite chemically.*— Instead of the glass of water, substitute a glass of vinegar, and immediately the chalk is put in it they will unite together, and form a chemical compound, different in its nature from either the chalk or vinegar used.

Ex. 3. *Oil and Water a mechanical mixture.*— Mix together oil and water in a phial; however much these may be shaken together, the action is merely mechanical, as will be seen by their soon separating — the oil resting upon the top of the water, as at first.

Ex. 4. *Soap a chemical compound.*—Add to the oil and water a little pearl-ash or potass; shake the phial as before, and the three will unite chemically, forming soap.

Ex. 5. *The Phial of the Four Elements*, as it is called, is an example of mechanical action. It is made thus:—Take a phial, about six or seven inches long, and about one-quarter of an inch in diameter: in this phial put, first, iron or copper filings; secondly, chalk or whitening; next, water; and, lastly, naphtha. These being of different densities, and having no chemical affinity for each other, will soon settle as at first, however much the vessel may be shaken.

Ex. 6. *Chemical union of Four Bodies.*—Instead of the naphtha, pour gently into the phial nitric acid. It will be seen to unite chemically with the metal, the chalk, and the water, making the whole a bluish homogeneous mass.

ITS DEGREE AND DURATION.

The degree of chemical action excrcised by bodies upon each other is exceedingly varied, and so, also, is the time requisite for that action to take place. In some instances, many days, or even weeks and years, pass away before its effects become visible. In the spontaneous decay of animals and vegetables, the disintegration of rocks, the oxydation of iron, and still more so of lead and copper, by contact with the air, all of which are chemical processes, show the slow and gradual progress of chemical action; while the varied effects of effervescence, combustion and explosion illustrate how suddenly chemical action sometimes proceeds. The effect produced is often but little removed from a mere mechanical operation, and the change of properties inconsiderable: thus it is in solutions and decoctions. At other times, it is impossible to recognize the components in the compound produced from them. Bodies have often an affinity for each other in one state, though not in another; frequently the admixture of a third body is requisite to promote their union. In most instances, increase of temperature greatly aids chemical action; even light is frequently productive of the same effect, and in all cases it is absolutely necessary that each body should be in a state of minute division. Thus two solids combine with difficulty; a solid and fluid more easily, and two fluids with yet greater facility.

Ex. 7. *Slow action of the Atmosphere upon Iron.*—Let a piece of brightened iron lay exposed to the weather; if wet it will be soon rusted, if dry, some considerable time will elapse before this takes place.

Ex. 8. *Gradual absorption of Water by Lime.*—Quick lime exposed to the air becomes gradually slaked or chemically united with water, by depriving the atmosphere of any moisture which may be suspended in it.

Ex. 9. *Gradual change caused by Fermentation.*—Mix a pound of raw sugar with a gallon of water; in a few days a fermentation will ensue, which will change the whole into vinegar.

Ex. 10. *Chemical effect of Light.*—Wash a piece of paper over with a strong solution of nitrate of silver; dry it in the dark, and when dry expose it to the sun's light: though colorless before, it will now soon become black. The effect will be much more rapid if the paper be first dipped in very weak salt and water; it will then be photogenic paper, and a picture may be made by placing a dried plant, feather, bit of lace, &c., upon it previous to its exposure to the light.

Ex. 11. *Rapid chemical action shown by Effervescence.*—Add to a glass of sour beer, vinegar, or lemon juice a little carbonate of soda; effervescence immediately ensues, and the acidity of the liquid is destroyed.

Ex. 12. *Rapid chemical action shown by Combustion.*—Let fall into the flame of a candle some filings of iron or zinc; they will immediately burn, throwing out most beautiful scintillations.

Ex. 13. *Rapid chemical action shown by Explosion.*—Place a crystal of nitrate of ammonia in a fire shovel over the fire; when it has arrived at a heat sufficient for melting lead, it will, in the act of decomposition, explode with considerable violence.

Ex. 14. *Intense action shown by solution.*—Put some filings of copper or tin in a glass, and pour upon them a little nitric acid, when a rapid dissolving of the tin will take place, on account of the affinity between it and the acid, a nitrate of tin being formed.

Ex. 15.—*Combustion of Nitrate of Copper.*—Wrap up small crystals of nitrate of copper in tin foil; while dry no chemical union takes place, but moisten them with water, and soon the whole bursts into flame.

Ex. 16.—*Formation of Sulphuret of Iron.*—Hold a roll of sulphur to a bar of cold iron, they remain without uniting; but bring the iron bar to a red heat, and apply the sulphur as before; it will now unite with the iron, rendering it extremely brittle, while a considerable portion of light and heat will be extricated, the iron being changed into the sulphuret.

Ex. 17. *Formation of Glass.*—Mix together sand and potass; while cold no change is apparent, but heat them with the flame of a candle, urged with a blow-pipe, or else in the fire, and they will unite and form glass.

Ex. 18.—*Brilliant Combustion of Chlorate of Potass.*—Shake together some pieces of sulphur and chrystals of chlorate of potass—no action takes place; pound them in a mortar, and a loud snapping noise, attended by a flash of light, will announce their union. [*Caution.*—This should be tried in very small quantities.]

Ex. 19.—Mix together loaf sugar and chlorate of potass; of themselves they do not chemically combine, but touch them with a drop of sulphuric acid, and a most vivid combustion will ensue.

Ex. 20. *Extemporaneous Soda Water.*—Mix together half a tea-spoonful each of the dry powders of carbonate of soda and tartaric acid; in this state they have no chemical affinity for each other, but dissolve each previously in water, and the union of the two solutions will be attended by violent ebullition; in fact, the mixture is the well-known saline draught, or soda water.

ITS EFFECT.

Chemical action alters not merely the nature of bodies, but very frequently their form also, as may be seen by many of the preceding experiments: thus, solids are sometimes formed from gases and from liquids; liquids from solids and gases; and gases themselves are invariably produced from either one or other of these distinct classes. It is productive, also, in many instances, of great alterations of temperature, of volume and specific gravity, of color, and of taste.

Ex. 21. *Two Gases form a Solid.*—Brush the inside of a tumbler with a feather dipped in hydrochloric acid, and another with liquid ammonia; if now one tumbler be inverted over the other, the two invisible gases which are emitted unite and form an opaque solid, which is the chloride of ammonia or sal ammoniac. It will appear in the glasses as white fumes.

Ex. 22. *Two Liquids form a solid.*—Put into a glass a few spoonfuls of a saturated solution of chloride of lime, (muriate of lime,) and add to it gradually, drop by drop, sulphuric acid. If these two liquids be stirred together with a glass rod, they become converted into an opaque, white and almost solid mass.

Ex. 23. *Two Solids form a Liquid.*—Put into a mortar two drachms of sulphate of soda and two drachms of nitrate of ammonia. These substances, when rubbed together, will gradually become fluid.

Ex. 24. *Two liquids vaporized by mixture.*— Pour upon some strong spirits of wine an equal quantity of fuming nitrous acid; the chemical action will be so energetic that the whole will be dissipated into vapor.

Ex. 25. *Two Gases form a Liquid.*—Mix together chlorine and carburetted hydrogen gases. They will unite, and form an oily looking liquid.

Ex. 26.— *Two Gases form a Liquid.*— Mix together oxygen and hydrogen gases, in the proportion of two parts of the latter to one of oxygen, in a bladder; blow a soap bubble with the mixed gases, and when risen away from the bladder set fire to it, and the chemical union of the contained gases will be attended with a loud report, and water be formed.

Ex. 27. *Two Gases unite, and still remain gaseous.*—Mix together equal quantities of chlorine gas and hydrogen gas. They will, when subjected to light, unite and form another gas, the chloric or muriatic acid gas; it may be collected in a liquid state by placing a little water in the vessel holding the two gases.

Ex. 28. *A Gas formed from a Solid.*—Subject a piece of marble to a red heat in the fire, and carbonic acid will be given off in abundance, the marble being changed at the same time into quick lime.

Ex. 29.—Fill the bowl of a common tobacco-pipe with coal dust, cover it with sand or clay, and place it in the fire; when hot, carburetted hydrogen will be evolved, and may be lighted at the end of the stem of the pipe.

CURIOUS CASE OF MESMERIC DETECTION OF CRIME.

Lynn, Mass., May 28, 1845.

Mr. Editor:—Thinking that you, and perhaps your readers, might be interested in a specimen of what may be said on the possibility of detecting rogues through the power of Mesmerism, or Animal Magnetism, I have concluded to give a brief account of a case that has recently passed under my notice. It may exceed your belief, I am confident that it will your explanation, as it does mine—meaning the process by which the given result has been reached; but, incredulous as it may appear, I beg to say that the circumstances which I relate are bona fide facts, and can be proved to be such, should truth or virtue require, in any court of justice.

One of my nearest neighbors, a man of unquestionable veracity, on Tuesday of last week, in opening one of the money drawers in the counters of his store, discovered that some money had been taken from it, evidently by a stealthy hand, since he had been to it to make change—which I believe was in the time of an hour. The exact amount that had been taken he could not tell, though he knew it could not be large; and as to the individual by whom it had been taken, he could form no reasonable or satisfactory conjecture. His thoughts first recurred to his clerk, he being a boy that had been with him but a few days, and not knowing what power temptation might have over him; though he had seen so much to encourage confidence in his honesty, that he could not believe him to be the rogue. Who it could be, of those who had been about the store during the day, or of the suspicious characters in the neighborhood, he could not imagine or satisfy himself. After waiting a day or two, without fixing upon any one as the probable criminal, and having heard of the wonderful revelations asserted to have been made by Mr. and Mrs. C., in a neighboring street, through the power of Mesmerism, to gratify his curiosity in the shape of seeing what might be said on the subject by a person in the mesmeric state, taking along with him his clerk, he called on them for the purpose. Merely stating that he should like to have an experiment in clairvoyance, without telling them his motive or business, and they having had no means of knowing the circumstances in regard to the loss of money from his store, Mr. C. put his wife into the mesmeric sleep, and proceeded to ask her such questions as Mr. P., the applicant, might propose, without being in communication with her. The first question related to the discovery and location of his store. She soon found it, describing it without and within, to his entire satisfaction. The inquiry was next put, whether he had lost any thing from his store within a few days. After a strong, and somewhat protracted mental effort, she answered, "Yes, some money from a little drawer in the inside of a counter." In a free and earnest manner she went on to relate the particulars as they appeared to her; stating that, in the absence of Mr. P. from the store, and as the clerk stepped down into the cellar with a bare-footed boy to get some butter in a covered tin pail, (which the clerk well remembered), a lad, apparently about fourteen years of age, entered the store, reached over the counter, pulled out the drawer, and took from it four dollars in two bills, one a three dollar bill, the other a one, which he hastily stuffed into his pocket, and then, instead of making off in a hurry, put on a composed air, and, as the clerk came up from the cellar, made as if he had just come into the store, in a very loitering, lazy, careless manner, and at last leisurely passed out of the store with the boy that had got the butter. She then described the boy, including his size, looks, hair, &c., with great particularity; also, his parentage, habits and business; and, in tracing him from the store, followed him down to the corner of the next street, where she described him as going into a grocery, and giving two cents for an orange, &c. &c. The clerk at once remembered that a boy answering exactly to her description had frequently been in the store, and that he saw him, apparently coming into the store, as he came from the cellar, at the time mentioned; and he recognized as true of him what she had said concerning his parents and habits.

On returning from the examination, Mr. P. and his clerk thought the matter might repay a little further attention. They accordingly kept a look-out for the fellow that had been so particularly, and, as they thought, on reflection, so correctly described. Before the week closed, he made his appearance at the store. Mr. P. taking him one side, and speaking to him in a friendly tone and manner, told him that he wanted that money that he took from his drawer the other day, (intending to carry the impression that he knew him to be the rogue.) At first, he denied having taken the money; but when Mr. P. told him that a person in Nahant street, (having in his eye Mrs. C.), saw him enter the store, take the money, put it into his pocket, and when he went out, pass down to a certain grocery, where he bought an orange giving two cents for it, he lost his power of denial, and, in owning it, confessed that all the circumstances relating to the number and size of the bills, &c., were just as they had been described by the mesmerized subject; and, after expressing regret and sorrow, and saying that he had paid away the money, he promised to go to work, earn it, and restore it to him.

Such are the facts in the case, and I have them from the original and responsible sources. I submit them to the public, expecting them to be questioned and perhaps ridiculed, but knowing, at the same time, that they can be supported by the most unquestionable of human testimony. I have been particular to inquire whether either Mr. or Mrs. C. had any knowledge of the boy in question before the time of the examination, and if they had, whether they had any suspicion of him as a bad boy; and I learnt that, up to that time, they were ignorant that any such boy lived in town. Leaving every one to form his own opinion in the case, and to make his own comments, I here leave the subject.

Yours, believing in the progress of human discovery and knowledge.

[*N. Y Tribune.*] M. S.

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New and Valuable use of Magnetism.—Dr. Wright, of Pittsburgh, has made an application of magnetism to locomotives, which, if successful in practice, will be of great importance. It is well known, says the Pittsburgh Gazette, that locomotives of enormous weight are used upon our railroads, made so not for the strength nor power, but solely for the purpose of procuring that degree of adhesion to the rail without which attraction up hill cannot be accomplished. Dr. Wright purposes to effect this adhesion by simply, at will, as the occasion may demand, converting, by means of galvanism, the periphery of the driving wheel into a powerful magnet.

Its application is very simple, and it is calculated that it will give each wheel an adhesive force of two thousand pounds additional to what it has fom its weight. And as this adhesion is effected without any addition of weight, it follows, of course, that a given force applied in propulsion will be more efficient, as there will be less weight to be moved, and the tendency of having weight to run down hill instead of up will not have, in so great a degree, to be overcome by mere force of steam.

DR. KOCH'S DISCOVERY OF THE HYDRARGOS.

In January, 1845, I started for Alabama, where I began my researches at Claiborne, Monroe County, on the Alabama river. Here I discovered ten different beds of deposits, resting in a waving or rolling position one over the other, and forming, in this manner, a bluff of two hundred feet, in perpendicular height, above the level of the Alabama river, known by the name of the Claiborne bluff; each separate bed containing objects of the highest interest to the geologist, as well as the close observer, and each answering as a record of those ancient revolutions of our globe, during which millions of lives were almost momentarily destroyed, to make room for new ones to appear upon the stage of action, to flourish for a longer or shorter period, until, in some sudden and unexpected moment, they meet with the fate of their predecessors, and their remains formed a new bed of fossils, which at last were unanimously upheaved out of a deep sea, whose waves had been rolling over them for unknown ages.

It would lead me here too far to give a description of all the various strata. For this reason I will at once, in my description, leave Claiborne, and cross the Alabama river into Clark and Washington counties, which, to a geologist, contain some of the most interesting regions in the known world, and afford fully the same satisfaction as the Wældon formation of England, from which the celebrated Mantel brought to light so many monstrous reptiles which, ages ago, were the terror of the existing animal creation. Great is the interest with which a geological eye looks at those regions of England, and wonderful are the creatures with which we are thus made acquainted. But a new scene has opened itself in America, which, until now, remained in almost entire obscurity. A new comet, as it were, has burst upon us, shedding its refulgent light upon the geologist of the present day, and dispelling the clouds and darkness that before surrounded us.

Claiborne, which was visited some years ago by Mr. Conrad, was considered by him, to use his own expression, in a geological point of view, as a classic ground; but the section of country commencing in the vicinity of Clarkville in Clark county, extending into Washington county, and from thence into the State of Mississippi as far as I have been capable of exploring it, exhibits not only the same variety of oceanic estuary and land shells which we find at Claiborne, but also a variety of shells hitherto entirely unknown, and if we go higher up in the order of creation, we find Claiborne almost destitute of such; whereas, soon after we cross the river from Claiborne the scene changes, and we begin to discover the remains of vertebral creatures—in a greater number and variety as we approach Clarkville. A large portion of the surface of Alabama is termed Prairie, yet it differs materially from those large and fertile Prairies of Missouri and Illinois. That which in South Alabama is termed a Prairie is generally a rocky, hilly, and broken spot of land, which has more or less fertile portions, of a black, brown, or white soil, which belong to the same geological epoch to which a certain yellow limestone is classed, which it partly overlays, and which, in larger or smaller fragments, is mingled with it, and sometimes contains broken portions of iron ore and volcanic substances. Geologically speaking, this layer forms the upper, secondary, and the lower tertiary beds which I lately described in my Geological Report of South Alabama. The most characteristic fossil of it is, *clypeaster geometricus*, which occurs here in a high state of preservation. This strata is generally overlaying or resting on one containing a great number and variety of marine fossils, once the inhabitants of a deep ocean, which, after their death, formed for a long period their watery grave, until they, during the still progressive creation, were upheaved upon the dry land, and in the place of those extinct creatures appeared live ones of quite different forms, whose numerous remains we find now deposited in the above mentioned Prairies of Alabama. They consist of a variety of shells, corals, echini, &c., as also a large number and variety of shark's teeth and vertebræ, mingling with the remainns of saurier. But the most interesting and conspicuous are, the remains of the Hydrargos Sillimanii, the most gigantic of reptiles ever known, and which, we can well imagine, reigned a most tyrannical, cruel, and incorrigible monarch over an extensive estuary, whose full extent is at present unknown. At the time when Clark and Washington counties were first settled, single vertebræ of the forementioned maritime monster were discovered in various of the rocky prairies, but as the new settlers had no idea of their scientific value, they were destroyed by them in different ways. Some of them were even used for domestic purposes; for instance, I have seen several of them lying in fireplaces to answer in the place of andirons to keep the wood from the ashes, thus giving a sufficient draft of air. I was informed that they stood exposure to the fire so well, that some of them had been used for three successive years for the above purpose, and they were only destroyed by persons carelessly throwing large logs of wood on them with great force.

A planter of Mississippi, who was not acquainted with the fire-proof quality of these vertebræ endeavored to burn some of them into lime, but, to his great surprise and disappointment, they came out of the lime-kiln in the same state in which he put them in. Unfortunately, he had broken them into pieces before he had committed them to the fire, therefore they became a total loss to science. One of them, however, met with a little better fate, being used for a door step at a planter's house near Clarkville, where it had for years been trampled upon, but still bids defiance to the ravages of time, and thus gained their admiration; another was used for a purpose that few persons would think it for, viz., a pillow. Notwithstanding I had been accustomed to see these splendid relics of the antedeluvian world burned and trampled upon, which sight not unfrequently awakened in me feelings of melancholy regret, yet I was somewhat amused while, in company with a planter of Clark county, I entered the log cabin of one of his slaves, where I could not refrain from a hearty laugh at observing one of Afric's blackest sons stretching out comfortably on his humble cot, his curly head resting securely upon the half of a vertebræ of one of these most horrid monsters.

These vertebræ were also used for architectural purposes. For instance, one of them I dug up from under the ruins of an old chimney, where it had answered the purpose, for many years, of a corner stone, until at last the chimney yielded to time, and its falling ruins buried the relic, which, like the bird Phœnix, re-appeared unhurt and as fresh as ever, when taken out of the mouldering ruins, and now forms a part of my valuable collection. Another of them was, by the ingenuity of man, buried in the earth for running the hinges of a garden gate on its articulating surface. I am convinced, that if some enterprising geologist or comparative anatomist, provided with means, had explored those regions of Alabama eight or ten years previous, he would have been capable of securing many treasures of this kind which are now destroyed, and irrevocably lost to science forever.

With melancholy feelings I made this observation, and had almost given up in despair the hope of securing at least one nearly perfect skeleton of those wonderful beings of science, but I was agreeably disappointed by the discovery of the monstrous Hydrargos in a small prairie situated near

Sintabogue, or, as it is called by the Indians, Snake river, which prairie had been only one year in cultivation, during which time some of the vertebræ were exposed; this led me to the discovery of the rest of the skeleton, which will now add a new proof to confirm the observations made by recent researches, that this vast country bears a corresponding resemblance, in point of massive animal remains, to the sublime and enlarged magnificence which characterize the natural features of its surface and soil. This relic is, without exception, the largest of all fossil skeletons found in the old or new world; its length being upwards of one hundred and fourteen feet, without estimating any space for the cartilage between the bones, and must, when alive, have measured over one hundred and thirty feet, and its circumference probably exceeded twenty-four feet, reminding us most strikingly of the various statements made by persons in regard to having seen large serpents in different parts of the ocean, which were known by the name of Sea Serpents.

N. Y. Beacon.

A Sound Mind a Rare Thing.—"I once saw," says Mr. Cecil, "this subject forcibly illustrated. A watchmaker told me that a gentleman had put an exquisite watch into his hands that went irregularly. It was a perfect piece of work as ever was made. He took it to pieces and put it together again twenty times. No manner of defect was to be discovered, and yet the watch went intolerably. At last it struck him, that possibly the balance-wheel might have been near a magnet. On applying a needle to it, he found his suspicion true. The steel works in the other parts of the watch went as well as possible with a new wheel. If the soundest mind be magnetized by any predilection, it must act irregularly."

Wonders of Electricity.—The Hartford Courant says, that on the 26th ultimo, Mr. Fowler, of Mansfield, took to bed at Nottingham, and in the morning was found apparently dead from poison. The usual remedies were applied without effect, when electricity was resorted to. At the first application of the conducting wire to the chest of the patient, he rose gradually, but fell back again. At the second shock he rose up, crying out "Oh," and then fell back again; but at the third shock he started up, crying out, "Oh God!" and sat upright with ease. In a short time afterwards he asked for something to drink, and tea and coffee were administered to him. In three-quarters of an hour he dressed himself, and appeared almost entirely recovered. He had purchased two ounces of laudanum, and had taken the whole of it in two doses.

The "Hartford Courant" had better try it again.

MEDICAL CASES.

Clairvoyant Examination of a Patient.—*Disease:*—*Overcharge of blood to the heart*, in consequence of which this organ is very much enlarged—Lungs quite contracted—the air cells being very nearly closed, producing great difficulty of breathing. Liver quite torpid, and the nervous system very much deranged, but sympathetically arising from the diseased state of the vital organs. The phrenic nerve is, however, very irritable, occasionally throwing the patient into spasmodic convulsions. The tenth and lumber vertebræ in quite a deranged condition; but the principal difficulty is the enlargement of the heart (*Hypertrophy*)—never saw any thing like it before. Here the mesmerizee, or *clairvoyant*, became sick, and requested that the examination should be discontinued for the present. The somnambulist being thrown into the *clairvoyant* state the next morning, in my office, some three hundred yards distant from the patient's room, he continued the examination by giving the cause of the disease and the remedies, as follows:—Cause; severe cold from wearing thin shoes, which settled in the vital organs, after which followed improper medical treatment, creating greater irritation and derangement, involving the whole constitution of the patient, which has now settled down in a chronic form, leaving the system relaxed, prostrated, and almost irrecoverably debilitated. This disease will be very difficult to remove, and will require three months, with rigid care and close adherence to the following prescription:—First, bathe her feet well in hot water, made quite caustic with sal-soda. Take one gill of blood from each foot once a week for four weeks; this will serve materially to equalize the circulation. Her feet should be bathed every morning and evening in this ley water, as hot as will be agreeable, but no blood should be taken only as before directed. At the expiration of four weeks, her feet need not be bathed only in the evenings. She should take two of the diaphoretic powders every day for one month, one at ten o'clock and the other at eleven, A. M. A strengthening plaster should be placed over the lumber vertebræ. Her spinal column should be well bathed with the *magnetic* liniment every evening, for several weeks. Sweet spirits of nitre, and spirits of mint, combined in equal parts, may be taken in half tea-spoonful doses, when great difficulty of breathing is felt; the dose may be increased as necessity requires. This patient should be mesmerized for three months. Every day for one month, every other day the second month, and every third day the last month. This will serve materially to allay the irritability of the nervous system, and to give permanent relief. The mesmeric manipulations should be made from the head to the feet, and continued forty minutes each sitting. A great deal depends on her being regularly mesmerized. After the expiration of one month, when the bleeding operations are over, she should take two of the Hepatic pills every evening. This should be strictly observed for four or five weeks. The patient must not expect to be hastily restored to health, but by rigidly adhering to these prescriptions and directions, she will recover so as to remain in reasonable health, by being very careful to keep her feet warm and dry. She must be equally careful not to take any severe exercise which would produce fatigue, as any thing of this kind would serve to bring back the disease. Regular and moderate exercise should be taken as soon as the patient's health is sufficiently recovered to permit it.

This examination was made on the 25th of last March, by Mr. Dill, a very lucid and correct somnambulist. I was careful to treat the patient in exact accordance with the directions. This patient had come from a distance to be treated by the leading physicians of our city, several of whom tried their medical skill, to the full extent, for six months or more, but finally pronounced her case hopeless, and, so far as they were concerned, consigned her to the grave — another memorial of mortality quietly cut off in strict accordance with the *books*. One of these physicians, or scientific destroyers, conscientiously, *no doubt*, took his leave of her, after making the following speech: — "I have given you calomel and corrosive sublimate sufficient to change the disease in forty patients!!!" When first called upon to see this patient, she was spasmodically convulsed, and had been in this condition for some time. Her case exhibited every symptom, truly, except those which were desirable or favorable to recovery. In addition to this, the patient was suffering the most excruciating agony from Neuralgia in the face. This was removed in two or three days by mesmerism, and with which the patient has not been plagued since. Under this treatment the patient gradually recovered until we considered her sufficiently improved to return to her friends in the country. Although the patient's health is yet somewhat delicate, still it is gradually improving, and, with care, will undoubtedly continue, until she may become as healthy as she ever was; and even now she is able to walk, ride, sew, &c., performing most of the employments of females, to a reasonable extent, without fatigue. It is due to the Duodynamic system to say, that, after we obtained the magneto-electrical machine, and applied it in this case, the patient recovered more rapidly, and seemed to gain more permanent relief, in one month, than she had in two months previously. There can be no possible doubt, in respect to the powerful remedial agency of this machine, in all cases—(we speak from experience). I have used it with the most signal success in the most obstinate chronic cases of rheumatism which have ever fallen under my observation, as well as scrofula, and also diseases of the eye, throat, &c. Those cases of which we made mention in our last number, are improving finely, and will undoubtedly be restored to health, by the use of this machine, after their condition had become so hopeless as to bid defiance to any good effect by medicine alone thrown into the stomach.

We have had the opportunity of trying its remedial powers upon another patient, whose case was certainly a very hopeless one. He had been treated by eight or ten different physicians, who had given him up, and pronounced him incurable. This patient's disease was pronounced by his attending physicians to be chronic rheumatism; but the clairvoyant, who examined him, pronounced his disease to be an inflammatory state of the tissues of the arteries, retarding the circulation of the blood, and which was caused by cold settling in this delicate membrane. This was no doubt correct; for the flesh was wasting away very fast, and the skin had become very tight, showing evident derangement in the circulation. The fingers and toes were very much drawn and disfigured. The whole nervous system was, to a great extent, paralized. The patient, when he first placed himself under our charge, had no power to raise his legs, move his toes, nor open his hands; in short, he had to be lifted and handled like an infant, having no power in his muscular system to help himself. This gentleman has now been under our care some three weeks, and he has improved so far as to have complete power over his muscular system; moving his legs in any position he sees proper; moves his toes, opens his hands, and uses them with considerable facility; and, with a little assistance, walks from his bed to a chair, and from the chair to the bed, suffering no pain whatever; and, before this publication reaches our readers, we have no doubt but that this patient will be sufficiently improved to return home with safety.

We have another remarkable case, which we feel in duty bound to lay before our readers, especially the medical portion, and those who are so unfortunate as to be afflicted with those obstinate diseases which baffle the ordinary practice, and bid defiance to the potency of drugs and their compounds. This is a complicated case of *Phthisis Pulmonalis*, of long standing. The patient is a female, of probably twenty years of age, whose health has been very delicate for six or seven years. The menstrual discharges had never been regular, and the liver and lungs had become so seriously deranged, that life was ebbing, and, without prompt relief, the patient would soon have passed into a premature grave. Both sides had wasted away very much, and the skin, over the part thus affected, had become tight. We have succeeded in thoroughly mesmerizing this patient, and, when mesmerized, she becomes very lucid, and prescribes for herself. In accordance with her own prescriptions, we mesmerize her morning and evening, and let her sleep from one to four hours, as she may direct, applying the magneto-electrical machine some ten minutes each time before mesmerizing. She prescribes but little medicine, observing that she has taken too much medicine, and that the use of the machine, and mesmerism, will restore her much sooner, and more effectually, without the use of medicine. This patient is improving very rapidly, under this treatment. The skin has become loose over the decayed region, and the sides are distending themselves to their natural form.

The Duodynamic system of practice is certainly very successful in every grade of disease in which we have applied it. It bids fair to revolutionize the practise of medicine, and supersede the uncertain and dangerous method of throwing noxious and poisonous drugs into the stomach. This old *astrological* system of practice, like many more of the *foibles* of the day, will gradually recede before the overpowering truths progressively developing themselves in the arts and sciences. This is an age of improvement, which stoops not to the idiot, nor bends to the bigot; neither does it wait for the sluggard.

* * *

NEUROLOGY.

Dr. Buchanan, of Louisville, Kentucky, is now visiting St. Louis, and agreeably interesting our citizens with the theory and practice of his favorite science, Neurology. He will most certainly remain with us a sufficient time to make a thorough development of the principles upon which this highly exciting subject is based. Nothing can be more exciting and interesting to the human mind than to have its own wonderful powers displayed by artificial means, or by the natural stimuli of nature artificially applied. This science proves man to be a beautiful, but complex, machine, composed of a multiplicity of organs so perfectly connected with each other as to produce a unity of action; and, like most other machines, one wheel, or organ, may be partially deranged without destroying the action of the whole, and which may be repaired, or excited into healthy action, Neurologically. In other words, the brain is the motive, or mental power, which governs and controls the vital and physical organs; each organ of the body being governed and controled by a particular part of the brain. Hence, we perceive that any organ of the body may be aroused and brought into action by exciting the corresponding portion, or organ of the brain, or nervous substance by which it is governed; and, *vice versa*, any organ of the brain may be excited into action, and its functions manifested by the agency of Neurology, through the corresponding organ of the body. The human body, although composed of an almost innumerable number of individual organs, still presents a unity of action, they being so intimately connected in their operations as to bid defiance to the ingenuity of man in determining where the functions of the one ceases and the other commences. They may be compared to the positive and negative *forces* of the Galvanic Battery, which may possess any amount of power, but unless the opposite, or antagonist, poles be connected by some connecting medium, no effect would be produced. So of this human machine, if the conducting medium between the brain and the organs of the body be severed, the mind may *will*, but its mandates will not be obeyed. If the nerves of motion which connect the brain with the right arm were severed, the mind might desire to raise that arm, but its desires could not be accomplished, for the reason, that the mind could not convey its desires to the muscles, for the want of a conducting medium between the mind and the arm. There may be ever so much will, or power of mind, but without the medium by means of which that *will*, or mental power, can come in contact with the organs of the body, no action would take place. This medium existing, we perceive the unity of action among the whole, and, consequently, the possibility of effecting one by acting on the other. This discovery was made by Dr. Buchanan, beautifully corroborating the science of Phrenology and Mesmerism, and is destined to shed more light on human physiology, health, and disease, than any other discovery by which medical science has been enriched. The advantages of this science in all cases of derangement, mentally or physically, renders it the most desirable to physicians of any thing yet brought within their reach. Those physicians who neglect to give this subject a portion of their attention, will prove recreant to their duty, to medical science, and the welfare of their patients.

We should have been pleased to have treated this subject at greater length, but the want of room compels us to be brief, the greater portion of this number being already in type.

PHRENOLOGY.

Phrenology is now sufficiently known to be spoken of as a science of Mind. Abstract metaphysical phantasies are no longer regarded as the source of human judgment. That dark age question is settled, or left far behind in the onward progression of the human mind towards perfection. Memory, perception understanding, will, choice, &c.; — these affections are discovered to be more able images of science, referable to organic and structural developement. Man seems often willing to do many things that he cannot effect, by reason of his organization. He would be a poet, a painter, or a mathematician. What hinders him? He is not organized for those employments. Could Newton have been a poet like Thompson, Beattie, or Burns, much less like Byron, or Shakspeare? Could Watts, Arkwright, or Fulton, have displayed talents like Paganini, or Ole Bull? Or sung the advantages of the steam-engine in verses of musical cadence and melody? No; each individual is an original; his own organization imparts to him, and constitutes in him, his own peculiar modification, which can never be rigidly the same, for or in any two of the great family of mankind. The books we read — the company we keep — the hours of labor and of rest which we observe — the aliments and elements which we use for our nourishment, as well in their quantity as their quality — as also the temperament which we obtained from our parents being verified and modified to infinity, accounts for the various dispositions, affinities, affections, attractions, loves, hatreds, crimes, and virtues, that form the immense, entire general character of the brotherhood of man. Vain and futile are the objections of those who wish to promulgate the opinion, that every science is destructive to *Religion*. The phrenologist entertains much higher sentiments concerning the great and almighty Author of all things, than to suppose for a moment that ignorance, which is so often the fruitful source of crime and misery, can be either the terms or foundation of his eternal salvation. The phrenologist cannot, if he would, impose on any person in his profession, because he is passed from the word to the thing immediately; and surely it cannot be seriously maintained by any Christian, that the works of God can counteract, or be opposed to, the word of God. If there be any such persons, they ought immediately to be passed under the scientific inspection of some medical scholar, that the locality of their disease may be discovered, and, by humane trainings and teachings, they might be brought into a higher or more rational state of mind. The phrenologist has no secrets, nor makes any mysteries of his profession, but is perfectly willing to explain, even to the minutia, so far as he has progressed. The phrenologist uses no subtle arguments, nor far-fetched evidences, nor doubtful testimony, but has as many evidences of the fixed and unchangeable truths of his science as there are human heads in the world; none being without its own peculiar organization, descriptive and declaratory of *truth.* The phrenologist never shrinks from a fair, full, unequivocal investigation, and is at all times ready to give a rational, consistent, scholar-like, and christian-like answer to any and every rightly and fairly propounded question. The phrenologist will, in the darkest room,—a cavern, if it be desired—lay his finger upon the very place, the identical spot on the human skull, living or dead, and pronounce instantly whether the person be mild or harsh, courageous or timid, and a hundred other qualities, or modes of living. The phrenologist looks with his mind at the constitutive elements first, then at the organ, and, last of all, at the act, or ultimate expression; he begins from within, and works outwardly, when he forms deliberate judgment. The phrenologist teaches that, while the wants of the physical man from his physical organs are urgent, and relate altogether to sensual pleasure necessary to his state of being, such as food, lodging, and clothing, the intelligent or moral man has, from the nature and tendency of his organs, quite other delights and other objects. The phrenologist is ever prepared to assert, that, so long as man is first of the earth, he will be earthy first; but the moment his nature is reversed, he will be able to act quite otherwise than he does. The phrenologist asserts that ignorance is the bane of humanity, and science its antidote,—that the moral salvation of man is scientific culture, without which, he passes through life in a state of condemnation, an alien and an outcast, as regards social liberty and moral obligation. B.

* * *

We have been favored with the "Confessions of a Magnetizer Exposed; in which is shown the folly and falsehood of a recent pamphlet with the above title, by La Roy Sunderland." This is a pamphlet of some forty pages, containing, also, a glance at the philosophy of Pathetism, by the same author, with some critical remarks upon Professor Grimes' work on Etherology. The press of business has so far denied us the privilege of examining its contents; consequently, we are not prepared to judge of the motive of throwing this work into circulation, nor of the theoretical and practical utility of its contents.

MAGNANIMITY OF A DOG.

In the month of August last, a boy of about 11 years of age, the son of one of our citizens, was visiting in the country. As he was crossing a field, a dog pursued him as an intruder upon his master's premises, and the boy, being alarmed, ran for some distance, the dog chasing and barking fiercely. At length, as the dog was within a few feet of him, the boy stumbled and fell down a bank and broke his leg. The poor fellow was of course terribly alarmed, the dog still barking at him as he lay helpless at his feet. But the instant the dog perceived that the child was hurt, he returned to his master's house, and by his voice and actions convinced the family that something was wrong. Finally, after having tried in vain to quiet the dog, they followed him till they found the child crying for help, but at such a distance from any house that he could never have made himself heard. Had it not been for the dog, his enemy! the boy would have fainted there, or would have attempted to crawl away, in which case he would doubtless have destroyed his limbs.

The remarkable features in this case are, that the disposition of the dog was so suddenly changed. We often read of dogs making several efforts to save the lives of their masters, or children to whom they are attached, but this is the only instance we have ever met with, where a brute exercised what may be called, without irreverence, "the Christian principle" of kindness to a fallen enemy. In this respect, the dog was much *more of a man* than many in this world who walk upright.—*N. Y. Observer.*

POETRY.

Think for thyself—to thee is given,
For thine own use, a soul;
What more have others, that to them
Thou shouldst yield up control?
Think for thyself—be sure thy thought
Is firmly fix'd, and right;
Then like the pearl unto the rock,
Cling fast with all thy might.
Think for thyself—one good idea,
But known to be thine own,
Is better than to filter through
An host from others thrown.

THE

SAINT LOUIS MAGNET.

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CORRESPONDENCE.

Plainfield, Ia., Nov. 1, 1845.

Mr. Editor: — The perusal of your publication has given me much satisfaction, in anthropological science. From the connexion existing between the mind and body, it is evident that the salvation of man can be most effectually promoted, by elevating the body with the mind. To do this, the laws of man's nature must be studied and understood, physically, organically, morally, and intellectually; or the philosophy of vitality and mentality must be known and obeyed; therefore, I have conceived that my sphere of usefulness, in promoting the happiness of my fellow beings, would be greatly enlarged and more happily occupied, by qualifying myself to relieve the body as well as the mind.

It is not my wish to become a medical practitioner, but I wish to obtain that practical knowledge in medical science necessary to relieve suffering humanity, with which I so frequently meet in my ministerial labors; and I am fully persuaded that there are no means by which I could better qualify myself for this most praiseworthy of all objects, than to become practically acquainted with the science of Mesmerism, and most especially the Duodynamic system of practice, or that practice which appertains to the use of the magneto-electrical machine.

I have so much confidence in nature and physiological remedies, to remove disease, aided by botanical medicines, that I have undertaken to cure a young lady of a nervous affection involving her whole system, which has completely prostrated her for more than two years. This patient has been declared incurable by the best physicians in the country, but you know their reliance is on drugs alone, which more frequently irritate disease, and thereby shorten life. It is well known that consumptive patients last but a short time, when treated by allopathic physicians; this is undoubtedly caused by the strong medicines, which irritate and aggravate, rather than soothe the diseased organs, and to assist nature in removing the disease. Observation and experience must convince every one of the correctness of this conclusion, whose prejudices are not stronger than their reasoning, or, phrenologically speaking, whose selfish propensities are in obedience to the knowing and reflective faculties.

I will state to you the course of treatment which I have marked out for this patient, in a brief manner, and any advice you may be pleased to give will be thankfully received. The patient is of the sanguine temperament, and did possess a powerful constitution, and still has a strong hold on life. The course which I am pursuing is, first, careful dieting, in which strong and exciting food is prohibited, especially animal food, and every thing of a greasy nature. Secondly, the cold shower-bath every day; wrapped immediately in blankets for three hours, then rubbed with a dry towel and flesh brush. For her cough, the Thompsonian cough powders. To promote digestion, No. 4 — composition, occasionally, to keep a determination of the vital power to the surface — magnetism to soothe and strengthen the nervous system.

Should this course not meet with your approbation, please make such corrections as you think proper, and greatly oblige your fellow laborer in the cause of humanity. G. W. H.

It is certainly true that mind is only known as manifested through matter, and, independent of matter, mind is not known. The mind may, with propropriety, be compared to a swarm of bees; the best service we can render them is, to prepare them a suitable hive, or tenement, to protect and take care of it, leaving the bees in peaceable possession of its internal apartments, gathering the sweets of life, and storing them up in suitable abundance. Any attempt to improve their interests, by tampering with their internal operations, would, most probably, prove prejudicial, rather than otherwise. The same is undoubtedly true of the mind; to attempt to improve it, independent of the body, its habitation, is as futile and inconsistent with reason and observation as it would be to attempt to improve the quality of honey, without reference to the source from which it was collected, and the vessel in which it should be contained. So, if we wish to improve the condition of the mind, we must have reference to the food which sustains the body, as well as that upon which the mind feeds; for the mind is manifested through the body, and necessarily partakes of the nature of that substance through which it is manifested. If the materials upon which the mind feeds be light and vulgar, the mind will partake of its character. Hence the injurious effect of light and vulgar reading. If the matter through which the mind is manifested be coarse and weak, the mind will, to a greater or less extent, partake of its character. The food upon which the body feeds has its modifying influence upon both mind and body. Hence, DIETETICS becomes a very important study. A diseased condition of the body diseases the mind—so intimately are they connected, that one cannot be deranged without the sympathy of the other; hence the necessity of strict attention to the body, that its condition may be healthy, its quality fine, and all its organs or parts in such due proportion to each other, producing an harmonious action uninterrupted by a single jar. Then, indeed, would the design of nature be accomplished, establishing order and happiness to perfection. To bring about so desirable a result, the services of the schoolmaster, the divine, and the physician, are peculiarly brought into requisition.

As to advice, in respect to the patient in question, not having been informed of the symptoms peculiar to her case, would render it extremely hazardous indeed. These complicated lingering diseases of long standing require close and careful observation of temperament, as well as every other peculiarity of the patient. The practitioner must not be confined to books and circumscribed rules; powerful judgment, with careful observation, in varying the remedies to suit the exigencies of the case, are the only safe principles upon which the physician dares to base a system of practice. Any system of practice, less contracted than this, is sure to be faulty in the extreme—more frequently destroying life than preserving it! Those remedial agents which prove so effectual in one individual's case, frequently prove aggravating and destructive to another, which, to every appearance, was perfectly parallel. Thus it is in the practice of medicine; every dose thrown into the stomach is an experiment, which may produce the desired effect, and it may not. Hence, the physician says, "if and if." If what? "If the medicine produces the desired effect, the patient will recover." Careful dieting and prudent exercise are two medicines, in those complicated lingering complaints, which I am strictly conscientious in recommending. Yes! one other; —but it is not a drug, to be thrown into the stomach—it is the Magneto-Electrical Machine. Its entire success in treating every case of disease and in every stage, if not to permanently remove, to immediately palliate, compels us conscientiously to recommend it. We have caused consumptive patients, both male and female, who were gasping for breath, to breathe perfectly free and easy in less than two minutes, finding themselves clear of all oppression for the time being; and where those difficulties are not too deeply seated, a few applications of this simple machine permanently cures. It does not appear, like most drugs, to be limited in its application to a certain kind of disease, but, so far as we have had an opportunity of judging, it proves equally successful in all.

It possesses that peculiar power necessary to rouse the system in ever instance, to increase the temperature, and equalize the circulation; givin immediate tone to the nervous system.

We were called to see a patient, a few days since, lying in a comatos state; eyes rolled back, and fixed in the sockets; the veins very muc distended; the blood having almost ceased to circulate. We had him put i hot water up to his knees, and opened a vein in each foot, but no bloo flowed. We applied the magneto-electrical machine, when the bloo flowed immediately, with its wonted freedom. The patient was immediately relieved, and forthwith recovered, with but little mor attention.

In another case, where the patient had fallen from a building, bruisin his shoulder and side very much, this machine was equally successful i rousing and equalizing the circulation, and relieving the sufferer of th most excruciating pain in a few minutes. Notwithstanding this patien was very severely bruised, suffering the most extreme pain in hi shoulder, side, bowels, and hip, yet, in less than thirty minutes, it wa all removed, and the next day, instead of lying in bed, suffering wit extreme soreness, as must have been the case under the ordinary mod of treatment, he was walking about, as usual, and the next day or two, found him at his regular employment.

We have used this machine very successfully in one case of cataract o the eye. It is a safer and much more pleasant method of treating this difficul disease than with the knife, and we have not the least doubt, much more permanent, as it gives the eye such strength and vigor as would resist any predisposition to its return. This is an admirable as well as a ver desirable improvement in the treatment of cataract.

We are now applying it in a very critical case of deafness, and, contrary to our expectations, we are much gratified to say, successfully. This is a case of long standing. The patient had taken a violent cold, which fell in her head, and, finally, settled in her ears, which broke and discharged matter. After a length of time, one ear healed up, but was perfectly insensible to sound—she could not hear a particle with it. The other, when we undertook the case, was fast falling into the same condition, and the patient must soon have been left entirely deaf. After applying the machine a while, her ears became very sore and tender, and are now becoming quite sensible to sound. By perseveringly pursuing the treatment, there can be but little doubt now but that a final cure will be the result.

The following is the result of the examination in this case, which was made by our clairvoyant:—

Disease:—"Left lobe of the lungs slightly contracted; liver rather torpid; lower extremities cold; too much action in the head, and has been for a long time. The patient is quite deaf, hearing but little out of one ear, and none out of the other. *Remedies:*—Half an ounce of sweet oil, one drachm oil of sassafras, and half a drachm oil cedar, mix.; one drop in each ear every evening, first syringing the ears out thoroughly with warm water and castile soap. Take the sap from green hickory wood, and saturate a piece of wool with it: keeping the ears closed with this will prove quite stimulating, and tend to prevent the patient from taking cold. Take a quarter of a pound of dog-wood, (*Cornus Floriday*) two ounces of ladies' slipper, (*Cypripedium Pubescens*), three ounces white poplar bark, (*Liriodendron Tulipifera*) one ounce *Lobelia Inflata*; add water, and boil till all the strength is extracted, reducing the whole to one quart; add sugar to make a syrup. Let the patient take half a wine glass full of this syrup three times a day. The patient must bathe her feet every other evening in warm water. The magneto-electrical machine must be applied as often as three times a week, until the disease is principally removed, when twice a week may be sufficient. The positive pole must be applied to the back of the neck, and the negative to the ears. Then the action of the battery may be passed through from one mastoid process to the other; then from one zigomatic process to the other; and, finally, through from one ear to the other—using the precaution of damping pieces of sponge, and placing them in each ear. The poles of the battery may be changed, so as to pass its action through the ears both ways. This will rouse an action in the auditory nerves, and produce considerable soreness, but will, eventually, remove the disease, leaving the auditory nerves in a healthy action. The battery should be applied from ten to fifteen minutes."

The patient's general health has already much improved. The pain in the ears, with which the patient suffered so severely, is entirely removed, and the soreness which was produced by the action of the battery, is mostly removed; and the auditory nerves are gradually becoming much more sensible to sound.

However much these clairvoyant examinations may look like humbuggery to the unthinking and prejudiced minds, it is, nevertheless, the most successful mode of practice with which we are acquainted; and were it more generally adopted, we are constrained to believe that thousands of lives might be saved which otherwise go down to untimely graves. Our experience in this matter is not of a mushroom character; we have tested it most effectually, and under the most trying circumstances, in cases of the most difficult and critical character, and, in every instance, was new strength and vigor added to our faith; this faith has finally developed itself, and become knowledge. The philosophy of clairvoyance has burst upon our benighted mind, and we no longer take it for granted upon faith. We have faith enough to believe that rain falls in China, but we know that rain falls here—knowledge supersedes the necessity of faith. Those who are ignorant of any fact must either take it upon faith or disbelieve it. As soon as we know a fact to exist, faith is no longer required; neither is it possible for us to disbelieve. For a man to say he does not believe a statement or proposition to be true, is merely to say he has not investigated it; for it must either be true or false. There can be no half way about it, and a thorough investigation of every proposition will prove this position to be correct.

THE ORIGIN AND PROPAGATION OF FEBRILE DISEASES.

BY W. CLAY WALLACE, M.D., NEW YORK.

It may be said that all fevers are owing to local irritation, arising from malposition of parts of the body, or the presence of foreign matter. Among the former may be enumerated protrusions of the viscera, distension of the extreme vessels, fractures, luxations, &c. Among the latter, pus and other excretions, necroses, poisons, animalculæ, vegetations, &c.

The present remarks have reference to two grand classes of fever—the remittent and eruptive.

The origin of the remittent class, which, as it is difficult to say whether or not the paroxysm altogether subsides, may also include the intermittent, has been usually ascribed to malaria or miasmata. Miasmata are generally considered to arise from the decomposition of animal or vegetable matter; and the effects on the constitution are said to be owing to inhalation of the gases generated by putrefactive fermentation. Although putrid matter applied to a wound may cause great constitutional disturbance, we have no facts to show that the emanations arising from it will occasion remittent fevers; for putrid macerations in colleges are often cleaned out in the hottest weather, without producing these diseases. In manufactories of adipocire, individuals have been surrounded by an atmosphere saturated with emanations from the decaying flesh of horses, dogs, and other animals, yet they remain perfectly healthy. Quantities of hay and weeds are rotted every summer. Animal and vegetable manure, in all stages of decomposition, is often collected in heaps. The very same materials said to engender malaria are subjected to the same decomposing influences without producing febrile symptoms, and the hottest seasons are not always the most unhealthy.

Happily for mankind, the poison producing febrile diseases cannot be prepared by human skill, even when aided by the numerous discoveries of modern chemistry. Though the elements are in the hands of the chemist, he can effect no combination of inert matter, capable of exciting a periodic disease, or one giving rise to emanations by which its kind may be reproduced. If such preparations could be made by art, the fabulous accounts of slow poison might be realized, when the spirit of revenge or cupidity demanded a victim. The ravages of pestilence might not be stayed with the destruction of the intended object, but spread all around, as the torch of an incendiary often devastates more than he intended.

The poisons generated by vegetables and animals are not inferior in power to those formed by the combination or decomposition of inert matter. As far as I understand, no artificial preparation of the elementary bodies will produce abortion, yet the laboratory of nature furnishes secale. Art does not furnish a compound capable of contracting the voluntary muscles equal to nux vomica. Prussic acid is inferior in virulence to aconitina, the fiftieth part of a grain of which has produced serious effects. A small portion of virus in the saliva of a rabid dog, is, when applied to the mucous membrane of the mouth, or into a wound, capable of lying dormant for a time, and afterwards producing horrible effects. An almost inconceivable portion of virus contained in the matter from a vaccine or variolous pustule, produces fever, and reproduction of the same kind of virus. Serpents, spiders, bees, gnats, &c., produce well known effects.

By microscopical obserations, light has been thrown on two contagious diseases—porrigo and scabies. The former has been ascertained to be a vegetable which even sheds its seed. The irritation of the latter is occasioned by an animalcule which burrows beneath the skin. Parasites are sometimes transferred from one animal to another, as the falling out of portions of the whiskers and eyebrows is said to be owing to destruction of their roots by a parasite of the horse fly. Like other soils, a particular state of the body seems to be necessary for the growth and propagation of parasites, for the animalculæ in the cheesy matter of acne punctata thrive best in a strumous subject.

Spurred rye is caused by a parasitical fungus, the dust on which will produce a similar affection in any grass, if sprinkled in the soil at the roots. This fungus, or rather the dust upon it, has proved poisonous not only to the mammalia, but even to leeches and flies, and has at different periods caused dangerous epidemics in different parts of Europe. Besides rye, many other grasses are subject to the alteration. It is probable that the species of fungus will vary with the plant, and that the variety will produce different effects — thus the dust from one kind of fungus or other parasite may produce yellow fever, from another cholera, and so on; or hybrids may be produced, giving rise to new diseases.

The powder diffused in the air on opening the common puff ball, is said to be myriads of its seeds, which, wafted by the atmosphere, may pass to great distances. Many of these will alight on barren soil, or at least on places unfavorable for their growth, while others, out of the abundance diffused, will find locations that will yield support, and where they may propagate their seed, to be again in like manner dispersed by the wind to seek new habitations. We may hourly inhale portions of these, or similar seeds, without being aware of their presence. The seeds of the plants which constitute mouldiness or mildew, require decomposing animal or vegetable matter as a soil in which they may grow, and reproduce their species: There is reason to believe that they are constantly in the atmosphere, as neither paste nor soup can be long exposed to decomposition, without being covered with a miniature forest.

It is in autumn, when seeds of various kinds have passed to maturity, that fevers from malaria most frequently prevail. In dry or in very wet weather they are not often observed, but they appear after much rain, when the moisture has partially evaporated, and the vegetable matter been rendered favorable for mouldiness. Plantations of rice, which requires much moisture for its growth, are considered so unhealthy that the Russian government has prohibited its cultivation.

In 1817, Savannah, as I am informed by a gentleman who formerly resided there, was as healthy as southern cities usually are, till the rice on a large plantation near it was cut. For some time before this the prevailing wind was the south-west. Several days after the cutting of the rice, the wind changed to the north-east, or from the rice fields to the city, and in a few days the yellow fever prevailed to an alarming extent.

As plants have their peculiar locations, and do not survive the seasons of other latitudes, imported parasites may be propagated on whatever serves as a soil for mouldiness, till they are suddenly blighted by the appearance of frost. The poison of yellow fever gradually extends from the part where it was first introduced, and, to use the language of the contagionists, creeps from spot to spot, and increases the extent of the infected district. On the other hand, the poison of typhus, one of the exanathemata, does not survive the heat of a tropical region.

The cause of various other affections has been ascribed to animalculæ, and from what has been ascertained about itch, there is ground for the opinion. Animalculæ have been dried, and kept for a series of years, and have again exhibited all the phenomena of life after being immersed in water. Their ova may lie in dust, and be diffused through the atmosphere, until they are placed in circumstances favorable for their development. It is possible that in this way some of the exanathemata may be disseminated. The plants or animalculæ producing them, or their seeds or ova, may be contained in the albuminous crusts, which occasion the disease by contact, or when dried and distributed throughout the atmosphere, by being inhaled. Their seeds or ova may also be put forth with the air, from the eruptions on the lining membrane of the lungs.

There may be something more than mere figurative language when we talk of the seeds of disease, and of the periods of germination or incubation. The seeds or ova of eruptive diseases may pass through the food or air passages to the circulatory system, and be deposited beneath the cuticle. After a period of germination or incubation, they are more speedily developed on the parts most exposed to air and light, and progress more slowly on the rest of the body. After an allotted time they reach maturity, and then die away, having previously yielded the means of propagating their kind. It is perhaps by limiting the quantity of seeds, or ova, that the complaint is milder when the matter of small pox is inserted beneath the cuticle, than when it is received by the air passages. As plants are modified by cultivation in a different climate and soil, diseases are modified by passing through a different animal; thus, when small pox prevails, cows may take the disease, the products of which will occasion a complaint that is rarely fatal, and which can be communicated only by planting, or direct contact to an abraded surface.

According to the theories advanced, most febrile diseases are of two kinds. The one is occasioned by irritation from reception of poison from parasites, away from the body; the other by irritation from parasites in the skin. The one is propagated on bodies exterior to the person; the other is propagated upon it. Though the one is, strictly speaking, non-contagious, both are alike to be dreaded, for the seeds of pestiferous fungi may take root on decomposing matter, and soon, by reproduction, fill the air with poisonous dust. The seeds of the other may be disseminated in a similar manner, to grow and be reproduced on the body. The euphonous terms, koino miasma and idio miasma, have been employed to distinguish contagion from the person, from that arising from infected air.

Parasites, then, are the chief sources of disease, and as we can only attribute the commencement of animal and vegetable life to creative power, it is inferred that these causes of mortality existed from time immemorial. Contagious diseases have broken out among workmen engaged in the manufacture of chlorine, and all disinfecting agents have been found so inefficient, that we do not know they can be controlled by any known substance. Habits of ablution, which have been so often recommended, have been found by experience to be the best means of checking their propagation. To have a system free from noxious parasites, it is necessary to observe the utmost cleanliness. Cleanliness in the street, in the yard, and in the domestic animals. Cleanliness in the ceiling, the walls, and the floor. Cleanliness in the kitchen, the parlor, and the bed-room. Cleanliness in what we eat, what we drink, and what we put on. Cleanliness without the person, and cleanliness within it. As the weeds from an ill-conducted farm annoy an industrious neighborhood, it is a good rule to keep well to windward of a suspicious looking craft.

The larger insects, as flies and worms, consume the decomposing matter on which noxious parasites may take root, and if it abounds they become so annoying that its removal is demanded. The slumberer on an unclean bed is again and again reminded that its condition should be examined, and unclean garments soon present their own memorialists. Burns, with the feelings of a poet, might utter his detestation at the ugliness of one of them, but it required the philosophic mind of Peter Pindar, who was educated a physician, to compose a poem in its praise. The little musquito, with its buzzing noise and poisoned bill, does its utmost to prevent approach to marshy districts, especially in the evening. With indomitable courage and perseverance it repeats its warnings at the imminent risk of its life, yet it may prevent remittent fever in another way. I have been informed by a medical friend, whose father made the observation, that those who slept under musquito netting escaped the disease, and hence concluded that the insects were useful in forcing its adoption. The poisonous seeds being interrupted by the netting, leave the atmosphere within it comparatively pure. It is possible that by falling on the aqueous vesicles constituting mist, the dust of malaria may be inhaled in a more concentrated form, by exposure after sunset.

When animal or vegetable parasites are introduced to a rural district, other parasites are apt to accompany them. A like course is observed by the parasites constituting disease, for itch and the exanathemata have often their sequelæ. The seeds of porrigo are sometimes introduced with the virus of vaccinia.

Many vegetable poisons cease to exert a noxious influence, when the system is accustomed to their action. A drachm of tobacco has occasioned death when infused and administered as an enema for strangulated hernia, yet there are numbers who, by frequent practice, chew several drachms a day, without apparent injury. It is well known that the cases are most fatal at the first appearance of the epidemic, and that Creoles are not so able to be affected with fever as strangers. *Boston Med. & Sur. Jour.*

FOR THE ST. LOUIS MAGNET.

THE MILK SICKNESS.

Mr. Editor:—During a late trip in Illinois, I took pains to collect all the information I could from every source, concerning this "pestilence that walketh in darkness," striking its unsuspecting victims from its undiscovered hiding place. My object was to drag to light this unknown murderer, upon whose head so many bounties have hitherto been set in vain. Shrouded in impenetrable mystery, he has defied all attempts at discovery, and even bribed his very victims and their suffering friends, to hush up his midnight assassinations; scarcely any one being willing to disclose his doings in their neighborhood. From all I could learn of the stately goings of this dreaded angel of death, of whose footsteps no one can be forewarned, I have come to the following conclusions:—

1st. It is *not* a vegetable poison, because no vegetable poisons inflict the *permanent constitutional injury* which this is known to do. No deadly mineral poisons (which milk sickness, from its effects, must be) are known to be incorporated in the growth of vegetables in sensible quantities.

2d. It *is* occasioned, principally, by *Arsenious* fumes issuing from the earth, perhaps at times slightly impregnated with cobalt or copper. These fumes are, quite probably, in many instances, in the form of *Arsenuretted hydrogen gas*, known to be a very noxious compound; at other times and places they may become an *evaporated Arsenic acid*, which has a thick honey-like consistence and appearance. Something like this last substance has been frequently seen near two famous milk sickness spots, mixed with the dew in the morning, upon the herbage. I also heard that it had been found in a white incrustation on rocks about a spring whose waters produced milk sickness—the fumes, in this instance, having become incorporated with the water in their passage out of the earth.

I visited two famous milk sickness localities, both *low places*, and evidently formed by the sinking of a portion of the surface into a deep subterranean cavity. After rains, and in damp weather, a fog is seen rising from these insulated spots, while it rises from no other portion of the surrounding country, evidencing the escape of warmth from great depths, through an opening in the stratified rocks, bringing up with it *arsenious vapors*, from the regions of heated granite.

These are the kind of suffocating fumes which Telemachus encountered, "boldly, sword in hand," as he approached the *Desensus averni*.

When the wind blows they are dissipated into the atmosphere, without injury to any one, but when the air is still at night, they accumulate, and are brought down with the falling dew upon the herbage in quantities sufficiently sensible to poison the cattle that feed upon it. The flow of these vapors depending on subterranean dynamics, are as uncertain and interrupted as volcanic action.

If this view of the causes of milk sickness is correct, the investigation of it becomes the province of the geologist, and not of the botanist. If the legislatures of the different states where this scourge prevails, would employ a scientific geologist and chemist like Professor Owen, to visit noted localities, and gather facts by extensive correspondence, to endeavor to arrive at a conclusion in this way, they would, in my opinion, take a more *practical* view of the subject than in offering bounties to the discoverer of it. Their present plan smacks too much of the quack principle on which some people employ physicians — "No cure, no pay." Let the explorer first obtain information from the farmers of localities; then judge, as near as he can from the surface, where the subterranean fissures exist in the stratified rocks, and submit the air over them to some delicate test of arsenious presence. In this way these breathing holes of the earth may be discovered and fenced out, at public expense, as forbidden and infected districts. Experiments should also be made with diluted arsenic upon domestic animals, to see how far it corresponds with milk sickness.

In listening to the detail of the symptoms of milk sickness, (an acute case of which I have never seen), I was forcibly struck with their similarity to a disease of which the English once died, after taking possession of a fort, from which they had driven the French. At last, the cause of it was found to be a bag of arsenic in the bottom of the well from which they obtained water. So far as I can learn, the milk sickness has generally been treated as a poisoning disease, but until the precise nature of the poison is discovered, all medical treatment must, of course, be defective. The poisonous contents of the stomach and intestines should be promptly removed first, when a stomach-pump is not at hand, by emetics and cathartics, tickling the fauces with a feather, &c. On the supposition that arsenic is the cause, linseed tea, soap water, decoction of mallows, white of eggs and water, syrups, sugar water, warm milk, chocolate, &c., should be copiously drank, and used in enemas; half a table-spoonful of iron rust in a cup of water is good. After administering any of these, let vomiting be excited by a feather in the fauces, and the operation frequently repeated. Against the dangerous sinking and prostration that follows, a very weak dilution of laudanum, in small quantities, would be good; also a little quinine mixed with the linseed or mallows tea.

These hints are thrown out for country people to follow until a physician can be had. The writer once treated a person whose constitution had been nearly ruined eighteen months before by milk sickness. His former health and strength were, in a great measure, restored by homœopathic doses of carbo vegetabilis and nux v., continued for ten weeks, the former producing the most marked improvement. H.

[This view of this formidable disease is corroborated by several very intelligent observers with whom we are acquainted. Facts, with which we are acquainted also, would seem to strengthen the position taken by our correspondent. It is a subject, at all events, worthy of investigation; and every person, most especially physicians, who have the opportunity of gathering facts and making observations, should not neglect to do so. By this means, the true cause of this fatal disease may be discovered and removed, or, at least, greatly modified.]

FOR THE SAINT LOUIS MAGNET.

PHONOGRAPHY.

Mr. Editor:—From a perusal of your Journal, "The Magnet," I perceive it is devoted to the furtherance of science and knowledge. The subject to which I would call your attention, and the attention of your readers, has, however, no connection with the subject of animal magnetism, yet it is one of very great importance, and well worthy the notice of the intelligent portion of this city—I have reference to the science of Phonography, or, writing by sound. This subject is now being placed before the eyes of the people of St. Louis by the inventor, Mr. Benjamin Hardinge, a gentleman of rare acquirements, learning, and scientific research. The present method of writing, as all who write much are aware, will admit of much improvement, being very inadequate for writing with a degree of facility, and, at the same time, with accuracy. The number of silent letters, the combination of several letters to produce a sound which may be expressed by one, and often a different letter from any used, besides the great number of motions necessary to the formation of these letters, and the words in which they enter, are in themselves sufficient to render the task of writing a laborious one, especially if great facility is required. It was this that induced Mr. H. to look for some other method than by the characters now in common use; he examined the various systems of Stenography, invented to remedy the difficulty, but found them, in a greater or less degree, inadequate for the end desired; yet these systems were, for the most part, improvements on the common way of writing. He was thrown on his own resources, and, after the labor of some years, he has presented to the public a system greatly superior to any other system now in use. He commences by taking for his guide the various sounds which are requisite in pronouncing the words in the English language, or those of any other; these sounds he reduces to between twenty-five and thirty; for characters to represent these sounds, he has recourse to geometrical principles, and from the circle and angles he forms all his characters; each character is made with a single motion, and no combination of characters, for the formation of any word, embodies more than seven motions, whereas, in the common way of writing, that number of motions is often required for the formation of a single letter. The motions used are the most natural for the hands and fingers, easily learned, and as easily retained in the memory. It has been objected by many who have paid very little attention, that it is very blind, and learned with difficulty; but it is not so. If they would but give it the attention which it fully deserves, they would soon be convinced to the contrary. As a facility in writing, it is acquired in a very short time, and, with a little practice, a person is enabled to write as fast as one would ordinarily talk or read. All silent letters are dispensed with in writing, the sounds contained in the word being the sole guide in its formation. In the short space of time of ten hours, a system of writing is acquired, by which the whole number of words in the English language (amounting to 40,000, and upwards) may be written. It has been applied to the Spanish language with great success. I believe it is in contemplation by a person in this city, to apply it to the German; yet, having been made with an eye to the English language, it is, of course, better adapted to that than to any other language.

The science of Phonography is not the only science taught by Mr. Hardinge; he teaches a system of Mnemonics; it is called by him the "art of Memory;" a plan of aiding the memory in its retention of the many subjects presented to it. Its application to mnemonizing dates in ancient and modern history has been fully demonstrated to the people of this city, in the public lectures given by Mr. H.

He also has a plan of teaching History, Geography, and Grammar, by which the smallest child can make more progress, in six hours, than he can, in the present way of teaching, in six months.

When these subjects were first brought before the notice of the people of this place, they were decried and hooted at by the wiseacres and would be wise men, who take the opportunity of railing at any person who may have invented any thing useful, to bring themselves into notice, being well aware that their own merit would never do so. There are other persons here—men of learning—who have neglected to examine the system of Phonography, being satisfied in their own minds that it is not feasible. Yet I am well convinced, that, if those persons would but test the system as it should be tested, they would at once see its merit, and use all their influence to bring it into notice and general use. I do not mean to say that this system is perfect, for, in this age, when science is taking such strides in its onward progression, it would be indeed strange if every department of science was not capable of great improvement. Yet from a trial of the system, I am convinced that this testimony is justly due to Mr. Hardinge, from ONE OF HIS PUPILS.

CLIMATE, SEASONS, AND PERIODS OF TIME INDICATED BY FOSSIL WOOD.

By a knowledge of comparative anatomy, the forms, structure, and economy of beings long since obliterated from the face of the earth, may with certainty be determined. So by the aid derived from a few botanical principles, we may illustrate not only the form and character of vegetables, of which but the faintest vestiges remain, but also point out the important inferences at which we may arrive, relative to the state of the earth, the nature of the climate, and even of the seasons which prevailed at the periods when those plants flourished. Our distinguished countryman, Professor Babbage, has forcibly exemplified the inductive process by which such results may be obtained.

"We have seen," observes this distinguished philosopher, "that dicotyledonous trees increase in size by the deposition of an additional layer annually between the wood and the bark; and, that a transverse section of such trees presents the appearance of a series of nearly concentric, irregular rings, the number of which indicates the age of the tree. The relative thickness of these annular markings depends on the more or less flourishing state of the plant during the years in which they were formed. Each ring may, in some trees, be observed to be subdivided into others, thus indicating succesive periods of the same year during which its vegetation was advanced or checked. These rings are disturbed in certain parts by irregularities resulting from branches; and the year in which each branch first sprang from the parent stock, may therefore be ascertained by proper sections. These prominent effects are obvious to our senses; but every shower that falls, every change of temperature that occurs, and every wind that blows, leaves on the vegetable world the traces of its passage; slight indeed, and imperceptible perhaps to us, but not the less permanently recorded in the depths of those woody fabrics.

"All these indications of the growth of the living tree are preserved in the fossil trunk, and with them also frequently the history of its partial decay. Let us now examine the use we can make of these details relative to individual trees, when considering forests submerged by seas, imbedded in peat mosses, or transformed, as in some of the harder strata, into stone. Let us imagine that we possessed sections of the trunks of a considerable number of trees, such as those occurring in the Island of Portland. If we were to select a number of trees of about the same size, we should probably find many of them to have been contemporaries. This fact would be rendered probable if we observed, as we doubtless should do, on examining the annual rings, that some of them, conspicuous for their size, occurred at the same distances of years in several trees. If, for example, we found on several trees a remarkably large annual ring, followed at a distance of seven years by a remarkably thin ring; and this again, after two years, followed by another large ring, we should reasonably infer from these trees, that seven years after a season highly favorable to their growth, there had occurred a season highly unfavorable to them: and that after two more years, another very favorable season had happened, and that all the trees so observed had existed at the same period of time. The nature of the season, whether hot or cold, wet or dry, would be known with some degree of probability, from the class of tree under examination. This kind of evidence, though slight at first, receives additional and great confirmation by the discovery of every new ring which supports it; and, by a considerable concurrence of such observations, the succession of seasons might be ascertained in geological periods, however remote."[1]

FOR THE SAINT LOUIS MAGNET.

PHRENOLOGY.

Phrenology should be looked upon as a heavenly science, because it treats of the heavenly elements enfolded into an existence called *Man.*

Phrenology, like every other real knowledge, is a gift from heaven, and directs man to seek the Spirit, with respect to a knowledge of himself. It has not yet been applied in all its truth; still its value as a divine gift, remains unaltered. It should be studied as proceeding from that Spirit who has created the very faculties of whose joys it treats. It shows, above all other sciences, how the Creator, by his presence in the faculties, directs them to his own joyous purpose. The Creator has planted in the universe the three elements wherewith he works out the improved man, and Phrenology directs man to love and apprehend rightly the use the Creator is making of him. This science points evidently to the vital relationship which exists between *man* and his *Maker.* It demonstrates clearly the fact, that, in the animal economy, no operation can take place within an organ without the organizer—that no single organ, whether nerve or gland, performs a function of itself. Phrenology shows that the various feelings, sentiments, and qualities of the mind, with material instruments, cannot be manifested in this life, without the divine presence actuating them. The Creator is wonderfully and constantly remaking man, and it is to the *marvellous skill* and wonderful wisdom which He is displaying in the organizing work, that Phrenology calls your attention.

Phrenology asserts that every creature and every physical object is receiving a progressive constitution, and is placed in certain relations with the Creator;—that a sense of goodness and happiness is the result of obedience to these relations, and that vice, sin, and misery consist in, and arise from, the neglect and disobedience of the Spirit. Phrenology gives a just exposition of that which *previously* exists in human nature, and declares that the results of the qualities and actions have no individual existence independent of that mind which previously exists in the *Infinite.*

Phrenology treats of the known qualities in man, as a physical, organic, and moral being, under the action of general laws. It proves the correspondence that exists between the interior spirit and exterior form. It shows the results of the Eternal Spirit over mind and matter.

Phrenology shows that nothing can be more wonderful and precious than the productions of the Divine Mind, when manifesting itself through human conditions—that the human mind stands in nearly the same relationship to the Divine Mind as the earth does to the Sun, and that the manifold powers put forth in every day life by the most ordinary men, are manifestations of the Divine Mind, through its mentalized human instrument, *the brain of man.*

Phrenology shows that the Divinity himself, the Spirit alone, is that which animates all creation — is the life in all that lives — and that man's physical, moral, and spiritual faculties have, like man himself, a joy only from the Divine Mind.

Phrenology proves that every function of the mind and body is receiving a legitimate sphere of activity, that each may be misused, and that it is impossible to avoid its being so, except by fulfilling through the laws, all the Spirit's organic and moral requisitions; and declares the absolute and indispensable necessity of overcoming the animal nature, and of offering the whole mansion of the highest and noblest sentiments to the Spirit, for its exercise and use.

Phrenology is a practical science; is demonstrable both in its abstract and in its aggregate, and refers, lastly, and principally, to joyful results.

In what practical utility this science consists, will be treated of, or, at least, cursorily pointed out, in some future articles in this publication.

B.

[We shall be much pleased to have friend B. continue his correspondence, by showing the practical relations of Phrenology to education and morals in general. This is what the public mind requires, and we should be pleased to present them with it, through the medium of our publication, especially from so practical a writer as our worthy correspondent.]

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FOR THE SAINT LOUIS MAGNET.

Mr. Editor:—I believe, sir, that you will be able to recollect that I hesitated a good deal when you mentioned to me Dr. Buchanan's discoveries in the action and affections of the nervous system, by him termed, Neurology.

We have all so much and so frequently been disappointed by the failure of new discoveries, real or pretended, that, in common with most persons of experience and reflection, I am inclined to entertain a considerable degree of distrust about such professions of extraordinary power and knowledge.

I heard his introductory lecture, at Concert Hall—my doubts were shaken, but I was far from being convinced. I had no opportunity of attending his course of lectures which he gave to his class, business having otherwise engaged me, so as to leave me no leisure, only just to hear the last of his course. I do not pretend to judge deeply of science, but I feel that Dr. Buchanan is a very extraordinary man. I know not whether, indeed, most to admire his manner of treating his subject, or the subject itself. His language is flowing, full, and elegantly correct. His style unassuming, earnest, and familiar. His great aim seems to be to fix the understanding upon his subject; consequently, all the play of creative fancy, or brilliant display, or other fashionable but hollow artifices, are entirely neglected. He illustrates, however, by the most chaste and beautiful examples, and by the most appropriate and striking analogies. His proofs carry with them the most full and perfect conviction. Persons must be much more than ordinarily sceptical who can refuse him their credence, seeing that he demonstrates every proposition or the principle therein contained; those propositions are stated with such clearness, that there is scarcely a possibility of being mistaken in his meaning—they reach both the head and the heart, without playing round either—there seem to be no words more in any demonstration than what is absolutely necessary; and this, as you know, should always be the case in scientific lectures.

His method it is not in my power to describe; this, however, I may state, that every proposition is made by him, as far as possible, the basis of that which succeeds it. By this mode of procedure the memory is greatly assisted, and the judgment gratified.

I feel that Dr. Buchanan's discoveries are fraught with benefit to mankind; his science, of which your own embraces all the curative principle, is a message of mercy and benevolence to the human family—a real triumph of scientific culture. To you, sir, and to him, and to the great cause in which you are both engaged, I wish every success.

Yours, respectfully, A.

We have received a few copies of the "Sketches of Dr. Buchanan's Discoveries in Neurology." This is a neat pamphlet, containing one hundred and twenty pages, and will be read with marked interest by all those who feel interested in keeping pace with the rapid progress of Anthropological science. Price 25 cents, or five copies will be sent to address, by remitting one dollar.

We have also received a number of Phrenological Busts, manufactured out of plaster of paris, and neatly executed; containing all the organs mapped off, in accordance with the improved method of Mr. Fowler. The boundaries of each organ are distinctly engraven in the busts. Price $1 50.

A number of very neatly executed Neurological Busts have been left with us for sale by an ingenious artist, Mr. Dixon, formerly of England, These busts contain all the organs mapped off in strict accordance with Dr. Buchanan's discoveries in Neurology. Having examined the busts, and compared them with the Dr.'s chart, we hesitate not to say we believe them to be correct. They will prove an invaluable guide to the student who wishes to investigate this science. The organs are neatly engraven in the bust, and the name of each organ pasted on it, showing the precise locations of the organs. Price $2 50.

We acknowledge the receipt of a very acceptable present from our patron and friend, N——, and we cannot better express our gratitude than by wishing him uninterrupted health and happiness. This gentleman had suffered severely with a pain in his breast and side, for some six months. By reading the Magnet, he became so sanguine in the belief that our mode of practice would remove his difficulty, that he came the distance of twenty-five or thirty miles to see us. We applied the rotary galvanic machine, not at that time having the magneto-electrical, and in two days he returned home, perfectly well, and has remained so ever since. In a letter which we received from him, he says—"I have labored nearly as hard since as I ever did before, although, for some six months before I placed myself under your care, I was not able to labor at all." It is truly very gratifying to a physician, after expending his best energies for the relief of his fellow beings, to have it so gratefully repaid.

Sweating Blood.—Clairvoyance.—A remarkable case of *something* is said to have been exhibited, for some time past, in the person of Susan E. Pearson, a young woman living with Mr. Hiram Weetfall, in this town. She has been afflicted several times with severe spasms, in which she suffers great pain, and on two or three occasions sweat blood profusely over the stomach, and from the forehead. This sweating of blood she prophesied beforehand, and, on each occasion, it took place at the precise time predicted, in the presence of respectable persons, whose testimony we are bound to believe. It is also said that she has frequently, when sitting in a closed room, related accurately what some members of the family were doing in other departments of the house or premises. That she will tell the time of day to a minute, by a time piece in the other room, out of her sight—and, that, frequently, she has been heard reading the Bible correctly and fluently in her dark room. She says she can read and tell the time of day perfectly well in the dark, as it is all plain to her sight. Many of her sayings and doings are beyond the common experience of human actions. We give them as we have heard them from respectable witnesses.—*Wabash Courier.*

THE ST. LOUIS MAGNET.

This publication has now reached its eighth number, and we must say we are highly gratified, and agreeably disappointed, with the flattering reception with which it has met. Our friends of the press have most unanimously noticed it with marked respect, paying due tribute to its neat and tasty appearance, as well as the profound and philosophical matter with which its pages teem. Our subscribers, we find, anxiously await its arrival; many in the city frequently inquire for it several days before it is due. Its circulation is sufficient to cover expenses, and daily increasing. Hence, our friends have nothing to fear. It will be sustained and continued, notwithstanding the fears and doubts of its friends, and the malicious prophecies of its enemies. We have the back numbers sufficient to accommodate some five hundred subscribers more, and we should be pleased to have our friends interest themselves in obtaining subscribers sufficient to exhaust the whole edition by the time the second volume commences.

It has been strongly suspected, that a scientific periodical could not be sustained in the far West; but most certainly the reception which the "St. Louis Magnet" has met argues very differently, and compels us, in spite of preconceived opinions, to draw a very different conclusion; and all we ask, to make it equal to any of its contemporaries of like magnitude, is, sufficient encouragement. Such encouragement we hope to merit. We shall spare neither pains nor expense in making the work interesting, instructive and desirable to our readers; presenting them with whatever is new, solid and practical, upon all those subjects which it professes to investigate. We fully subscribe to the duodynamic system of philosophy, believing that two forces govern all actions — the negative and positive: one drawing and the other pushing—the positive pushing, and the negative drawing; that two positives repulse, and that two negatives produce no effect. Upon this principle we solve the problem of the "St. Louis Magnet" occasionally being repulsed. We close this article with a few examples of the attractive character, being so fortunate as to meet with but one of the opposite principle, (Sangamo Journal,) and that we have, unfortunately for our readers, contrived to lose.

Mesmerism.—We have received the first number of the St. Louis Magnet, a monthly publication, devoted to the investigation of Animal Magnetism, published by Dr. T. J. McNair, at St. Louis, for one dollar per annum.

The work seems clear of humbuggery. The editorials evince sincere devotion to science, with much ability, and the whole contents seem devoted to the object of furthering the new and astonishing discoveries in the human economy, subserving the best interests of man in the science and practice of medicine.—*Vicksburg Sentinel.*

The St. Louis Magnet—For June, 1845, is upon our table. This is the second number of this interesting monthly; and from the ability and knowledge of the philosophy of human nature displayed in the editorials, we incline to the opinion that its days will be many, and that its paths will be strewed with flowers. The contents, original and selected, are well written; and the general tone of "The Magnet" is such as to commend the sciences it advocates to the unprejudiced and candid mind.—*Green Bay Republican.*

The St. Louis Magnet.—The July number of this spirited periodical is received. It is certainly got up in the best natured and captivating style of anything we have seen upon the subjects of which it treats, and commends itself to all lovers of science. The philosophy of human nature is a theme of grave importance, and is worthy the careful investigation of every mind, and the "Magnet" augurs well to illustrate the subject carefully. Published at $1 per annum.—*Grant co. Herald, W.T.*

THE MAGNET OFFICE

Is removed to No. 92 Chesnut Street, nearly opposite the Post-Office, and is, most certainly, quite an attractive place; as every thing connected with Magnetism, Mesmerism, Phrenology, Neurology, Botanic Medicines, &c. &c., is kept on hand, and for sale. The Magneto-Electrical Machine—Rotary Galvanic, and Vibratory, can be had at the shortest notice, and at the lowest prices, by calling at this office, or addressing the editor, post paid. The Magneto-Electrical Machine is illustrated by an engraving in the fifth number of the Magnet, and the Vibratory will be found illustrated by an engraving in this number. The Rotary will be forthcoming in the next. The cost of these machines will vary in proportion to size. The Magneto will cost from $35 to $50; Vibratory from $15 to $20; and the Rotary from $13 to $18.

The Weather.—For the last few days, we have had unusually cold weather for the season, the thermometer having, for several morning's past, sunk below zero. The river is reported to be closed by gorges of ice below this city, and navigation is entirely suspended. This inclement weather rendering it almost impossible to work the *press*, has caused the delay of our appearance for a few days, for which our subscribers will show us the lenity the occasion demands.

NEW MAGNETO-ELECTRIC MACHINE,

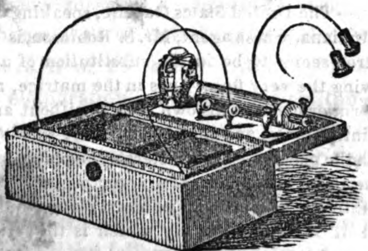
FOR MEDICAL PURPOSES.

The favor with which this little Machine has been received by many of the Medical Profession, and others who have used them, on persons laboring under various diseases who have been restored to health, or benefited thereby, induces this publication. The Machine is entirely different from all Electrical Machines and Galvanic Batteries—it requires to be used but from 5 to 10 minutes at a time. The effects are not repulsive to the patient, and no ill effects can be referred to. Testimonials in its favor are daily accumulating. It admits of the most perfect control, as, from a high degree of power, it can be reduced, with unerring certainty, down to the very smallest, by a slight alteration of the wires, at the pleasure of the operator. It requires no assistant in its use, where the person is able to hold the handles.

It is used with astonishing success in cases of Nervous Diseases, Neuralgia, Paralysis, Rheumatism, Sick and Nervous Headache, Dyspepsia, Bronchitis, Loss of Voice, Scrofula, Curvatures of the Spine, Toothache, Sprains, Deafness, and many other diseases. It has been used by hundreds of medical men, our hospitals, asylums, and infirmaries; and abundant references of its efficacy from our best citizens can be given. Many of the cures have been pronounced astonishing.

DESCRIPTION.

The Machine consists of a double coil or helix of coarse copper wire, insulated, over which is wound about 1000 feet of fine insulated copper wire, in the interior of which is placed a bundle of soft iron wires, and which, when the Machine is in operation, become powerful magnets, and regulate the strength of the power according to the extent they are placed in. At one end of the Machine, (placed sometimes at the side,) is an Electro Magnet, formed of soft iron, and bent in the form of a U, and wound with two coils of covered copper wire, one end of which is soldered to the Magnet, and the other communicated with the coarse helix. To one end or pole of the Electro Magnet is fastened a spring, with a small hammer at one end, and just over the pole of the Electro Magnet, and through which spring the power of the battery flows, from the point of a screw supported on two brass pillars, over the middle of the spring, (which screw can be moved to the proper distance, to cause the vibrations to continue with the best effect,) the current from the battery is carried through the helix, spring, and Electro Magnet, by connecting wires fastened in the brass cups, with binding screws at the side of the Machine. The fine wires are connected with cups at the end of the Machine, and in which are secured wires connecting with handles, or other conductors for communicating the effect.



The Galvanic Battery consists of an oblong square vessel, or box of copper, having a space all around of about an inch inclosed with copper for the liquid, and within which is suspended a square frame of zinc, so arranged as not to be in contact with the copper, it being supported by cross bars of metal, under which wood is fastened, to insulate it from the copper. There is a small tube in one of the corners of the zinc, and also of the copper vessel, to insert the connecting wires from the Machine. There is a projecting piece within each end of the inner apartment of the battery to set the zinc on when not in use. The space in the middle contains the Machine when transported, also the conductors, wires, &c. The liquid employed is blue vitriol, (sulphate of copper,) dissolved in hot water, about two ounces to a quart of water, left to cool before using. The liquid requires to be renewed when the acid is entirely taken up by the zinc, which will be known by there being no deposit on the zinc, after being immersed for a few minutes; in which case the liquid is poured out, and a new solution made, also any sediment cleaned out. The zinc frame should be left in the solution only while the application is made, as it soon becomes coated with a deposit which should be cleaned off after using, or if left to dry on may be scraped off with an old knife, a clean surface of zinc being necessary to the perfect operation of the Machine. The solution may remain in the copper any length of time, as it does not act on it.

DIRECTIONS.

Fill the exterior apartment of the copper box about half or two-thirds full of water, in which is dissolved an ounce and a half of blue vitriol. Place the zinc frame within it, care being taken to keep the zinc free from contact with the copper, in all directions. Fasten one end of one of the connecting wires securely in the hole in the corner of the zinc, the other wire in the copper, and the other ends in the cups, with binding screws at the side of the instrument. Touch the spring with the finger, and the vibrations will continue by the power of the battery. The effect is received from handles, or, conductors, attached to wires, secured in the cups with screws at the end of the instrument. The flat conductors, with cork handles, are to apply to or around any diseased part; or one handle may be held in the hand, and one of the conductors applied around the part affected. These are pleasantly used with a sponge tied over one of them, and wet with water. Metallic plates are also used to place the foot on, or to apply to any part under the clothes. It may be used agreeably, and with much effect, by the patient holding one of the handles, and another person the other handle, and with the other hand making passes over or around the diseased part. This is particularly useful about the head, and where the pain is under the hair it should be thoroughly wet, to have the effect pass through it. The best effects have followed from regular applications of a mild power, from five to fifteen minutes, twice or more a-day, a great power, in many cases of Nervous Disease, failing to secure the best effects, by the reaction produced in the system. The Machine may be used with confidence, no injury being known to result from its use.

* * *

Useful to Printers.—The United States Gazette, speaking of the improvement of Mr. Josiah Warren, of Indiana, whose agent, Mr. S. Robinson, is now in Philadelphia, says: "The grand secret seems to be in the substitution of a new and very cheap metal, susceptible of giving the very finest lines in the matrice, and yet so easily fused and managed that any printer can cast his own plates without any other fixtures than is to be found in any printing office, and that, too, in a very short space of time, and at a cost less than one-fourth the prtce of common stereotype plates. Mr. Robinson showed us a plate that had borne 10,000 impressions of a power press without affecting it. He also has specimens of printing from original type metal plates, and from those duplicated in the new metal, and it is difficult to say which is the original and which the copy.—*N.Y.Sun.*

[A company has been formed in this city, and the right purchased for the State of Missouri, of its original inventor, Mr. Josiah Warren, of New Harmony, Indiana. The leading article in the next number of the Magnet will be explanatory of this improvement in printing, as also a specimen of its application in producing impressions of written manuscript.]

THE
SAINT LOUIS MAGNET.

Vol. 1. SAINT LOUIS, JAN. 1, 1846. No. 9.

ELECTRICITY.

Electricity, of all sciences, has, during the present century, made most rapid strides, and stands pre-eminent in explaining the grander and more important universal phenomena of nature. It gives an explanation of the workings of a subtle and elastic fluid, called the electric fluid, which is distributed throughout all creation, remaining, while at rest, imperceptible to us, but when disturbed by mechanical friction, heat, or chemical action, producing all those effects called Electrical, Galvanic, and Magnetic.

The lightning, the Aurora Borealis, the waterspout, the whirlwind, the rolling pillars of sand of the desert, are but a few among the numerous effects of that powerful action of the fluid produced by friction, and which is usually called *free electricity; frictional electricity;* or *electricity of tention*, a science which from its first discovery has always been popular, not merely from its utility, but from the extreme beauty, and infinite variety of the experiments which illustrate it, most of which may be performed with but ordinary trouble, and at little danger or expense.

Singular it is, that a universal fluid such as this, should not have been known to exist until about 200 years ago; yet then were electrical appearances first observed, and the more surprising, as there is scarcely an action we can do, and scarcely a motion of inanimate nature can take place, be it mechanical or chemical, which does not in some manner disturb the equilibrium of the electric fluid. The impinging of cloud upon cloud — the evaporation of moisture from the earth's surface — the fall of rain — the rolling of the ocean — are all stupendous electrical machines, and it requires only a concurrence of favorable circumstances to render the disturbance perceptible to one or more of our senses.

The proof of the universality of the fluid, and the facility of its disturbance, will be evident by the following experiments; which are performed without the aid of a machine of any kind.

On Excitation.

Ex. 1.—Take a piece of common brown paper, about the size of an octavo book, hold it before the fire till quite dry and hot, and draw it briskly under the arm several times, so as to rub it on both sides at once by the coat. The paper will now be found so powerfully electrical, that if placed against a wainscot or the papered wall of a room, it will remain there for some minutes without falling.

Ex. 2.—If while the paper remain fixed to the wall, a light fleecy feather be placed against it, it will adhere to the paper in the same way as the paper adheres to the wall.

Ex. 3.—If the paper be again warmed, excited, and hung up, a thread attached to one corner of it, it will hold up several feathers on each side; should these fall off from different sides at the same time, they will cling together very strongly, and if after a minute they be all shook off together, they will fly to one another in a most extraordinary manner.

Ex. 4.—Heat and excite the paper as before, lay it on a table, and place upon it a ball, about the size of a pea, made of elder pith; this ball will immediately run across the paper, and if a needle be pointed towards it, the ball will again travel to another part, and so on for a considerable time.

Ex. 5.—Rub the end of a stick of common sealing wax, or a piece of amber, on the coat sleeve, when it readily attracts from the table, bran, filaments of linen, minute scraps of paper, &c., and holds them suspended in the air.

Ex. 6.—Take two pieces of white paper, warm them at the fire, place them upon each other, on a table or book, and rub strongly the upper paper with a piece of India rubber, the paper will now be found strongly electrical, so as to adhere together with such force that it requires some trouble to separate them, and when separated, and then made to approach each other again, they will immediately rush together a second time. If they be separated from each other in the dark, a flash of electrical light will be seen between them, most frequently accompanied with a cracking noise, which is the electric spark, and thus showing the electric fluid in sufficient quantity to be perceptible to the eye and ear.

Ex. 7.—Take two silk ribbons, one black, the other white, each about three feet long; warm them at the fire, holding them up flat against each other with one hand, and draw the thumb and fingers of the other hand briskly over them several times; they will thus become powerfully excited, and although the upper ends of the ribbons be forcibly separated, to the distance of a foot or more, the lower ends will still cling together.

Ex. 8.—Another instance of electric repulsion is seen when a bunch of long hair is combed before a fire — "every particular hair will stand on end" and get as far as possible from its neighbor.

Ex. 9.— Support a pane of glass (first warmed) upon two books, one at each end, place some bran underneath it, and rub the upper side with a warm black silk handkerchief, or a piece of flannel — the bran will now fly and dance up and down with much rapidity.

Obs.— In this way electric attraction was first discovered. A glazier, cleaning some window-sashes laying on a table, observed the small particles of whiting underneath to jump up and down; but it was long afterwards before the cause of this was known to be electrical. *Magazine of Science.*

DIFFERENCE BETWEEN ANIMALS AND VEGETABLES.

When we compare together those animals and vegetables which are considered as occupying the highest stations in each kingdom, we perceive that they differ from each other in particulars so obvious and striking, as not to admit of question. The horse, and the grass upon which it feeds; the bird, and the tree in which it builds its nest; are so essentially distinct from each other, that we perceive at once that they belong to distinct classes of organic nature. But it is far otherwise when we descend to those animals and plants which occupy the lowest stations in vitality; here the functions to be performed are but few, the points of difference obscure, and it requires a correct knowledge of the laws of organization, and a careful application of that knowledge, to enable us to determine with precision where animal life terminates, and vegetable existence begins. The lichen which grows on the stone, and the flustra attached to the rock, present but little difference to the common observer; both are permanently fixed to the spot on which they grow, from the earliest period of their existence to their dissolution; and in the vegetable dried by the heat of the sun, and the coralline shrivelled up from the absence of moisture during the ebb of the tide, we might seek in vain for those characters, which would assign the one to the vegetable, and the other to the animal kingdom.

The more important character, which animals alone possess, is the faculty of sensation, communicated to animal matter by a nervous system. In vertebrated animals a brain and spinal marrow form the apparatus by which nervous influence is developed.

Thus when any objects come in contact with our fingers, we are sensible of their presence, and our fingers are said to possess sensation;

if we compress or cut across the nerve which passes from the brain to the finger, this faculty of sensation is suspended or destroyed: the same objects may come in contact with our fingers as before, but no feelings are excited indicating to us its presence. This phenomenon must be familiar, for every one must, in lying or sitting, have compressed the nerve of the arm or thigh, and occasioned a temporary numbness, and loss of accurate feeling in the limb. We perceive, then, by our own experience, that the power of feeling is inseparably connected with the presence and condition of the nerves; and that in man, and the higher classes of animals, this nervous influence is transmitted from the brain and spinal marrow.

In examining the other divisions of the animal kingdom, the presence of a nervous system, more or less developed, may be detected; in the animals of the higher orders, nervous filaments can be distinctly traced, from their origin to their distribution in the various parts to which they communicate sensation. But in proportion as the system of absorbing, secreting, and circulating vessels becomes less, a corresponding diminution takes place in the nervous fibres, till at length both the vessels and nervous filaments elude our finite observation, and we are left to infer from analogy, that, since sensation depends on the presence of the nerves, and the smallest animals evidently possess sensation, a nervous system exists in the minutest monad of animal organization.

In the largest and most perfect examples of the vegetable kingdom, no traces of nerves are perceptible, nor of any substance which can be considered as at all analagous in structure or function; it is therefore concluded, that as vegetables are destitute of nerves, they are likewise wanting in that faculty which in animals we term sensation.

But the nerves not only bestow feeling, they also confer the power of voluntary motion; and, if the construction of the organs to which such nerves proceed be suitable, they enable the animal to effect progression, or in other words, give it the faculty of changing its situation from one place to another. As we descend in the scale of creation, we find many animals destitute of that power, and living on the same spot from the commencement to the termination of their existence; and all these animals are inhabitants of the waters.

Such, then, are the essential characters of animal existence—an external form gradually developed, with an internal organization possessing circulating vessels for effecting nutrition and support, and capable of attracting and assimilating particles of inorganic matter combined with a nervous system, communicating sensation and voluntary motion; a certain term of existence being assigned to determinate forms—in other words, a period of life and death.— *Ib.*

MAGNETISM, MESMERISM, OR ANY OTHER "ISM" IN CONNECTION.

When these *isms* were in their infancy, we lent the aid of the Beacon as far as our experience had satisfied us of their truth—laying down as a safe guide, that men should only fully believe to the extent of their own experience; and that, without prejudice, they should experiment to the extent of their opportunity. At that time we gave it a very patient examination, and arrived at the belief that there was some truth in it, and that *all* which was claimed for it by its honest zealots *might* be true, but that those persons had no right to demand the acquiescence of others without their experience, or on hear-say evidence; and that the most philosophical state of mind on the subject was, neither belief nor unbelief, on points the most wonderful, till opportunity should afford convincing evidence on the one side or the other.

At an early period we had an impression that there could be nothing *unnatural* about its facts, however strange, and that by searching there would be discovered the same phenomena without magnetism which is claimed to be exhibited with it; and that magnetism, or mesmerism, &c., would be reduced to the discovery of effecting artificially what nature daily effected on subjects prepared by herself. In this light it was expected to be the means of illustrating mental phenomena, and animal and vegetable life, to an extent that chemistry had not reached; for somnambulism existed before the mesmeric sleep, which it resembles. We had seen persons in fits, with the limbs rigid and unfeeling as a board, and mesmerism effected the same in that department, and nothing more. Medical experience had recorded that in disease some of the senses became dormant, and that others received an unnatural degree of acuteness, and mesmerism showed us the same phenomena. We had seen individuals with but *one* idea, or under excitement, with enlarged faculties of body and mind; and it was well known that men turned grey with mental agony—that with fear the hair would stand on end—and that single spots became grey under the excitement of a particular phrenological organ. At the same time, a subtle agent employed, which we had before considered, if not the Creator, the very finger of Deity; for the galvanic fluid was connected with these phenomena—the same fluid which apparently connects the planets, perhaps all nature, and possessing powers gigantic and undeniable—witness the electric telegraph. With such, or similar agents as thei *mponderables*, apparent miracles are to be expected; the phenomena of life, with the senses and passions, show them every day. Seeing, feeling, hearing, tasting, are referred to the nerves, and the nerves to the brain: but the phenomena are yet unexplained; but if human bodies, with a variety of organs, are magnetic, and these organs capable of excitement, separately or in combination, then many of the phenomena of human life are explained, and man in his *vagaries* becomes an object of pity—his love a physical weakness or an amiability—his hatred, with retreating step and strong expression of countenance, an amusing exhibition; some organ has been two highly charged, and his *contortions* are the consequence.

We are *satisfied* that what is called clairvoyance *may* be wrong; we have known it wrong in science! and in fact;—this, of course, destroys its mischievous qualities; for, if the clairvoyant, like the devil upon two sticks, could look through the roofs of houses into ladies' chambers; (to say nothing of gentlemens;) if the privacy of life could be laid open, and clairvoyants regarded as were witches of old, or as kings did soothsayers; if juries and people in authority believed these sometimes ravings of an honest but excited imagination, then of course the most depraved would imitate and assume the power, as did the supposed witches, and revenge themselves on their enemies, or become the paid assassins of others.

But, while we consider the probability of a clairvoyant's being wrong, there is also a possibility of his being right, or partly right and partly wrong; at least, the evidence has come in such a form, and in such quantities, as to demand attention, and without going beyond nature, to inquire into its powers.

Now sight is not confined to the eye as the only organ; the state of somnambulism, positive medical facts, and recent experiments, *prove* this. If, then, the vision of an object can penetrate a scull, (and some are very thick,) it is *uncertain* what limit to give to vision, especially if galvanism or magnetism be the means or instruments: and this is one element in clairvoyance. A brick wall, a few miles space, or some ribs and muscles, are not efficient impediments when the electricity of the whole body is concentrated on one or a few organs.

Again: the seeing into futurity appears at first sight supernatural. When the spirit of fanaticism arouses the dormant faculties of a weak, dull, or stupid man, and he sees heaven open, and all the glories of the kingdom to come, and the same strong spirit warms his heart and opens his mouth, inspiring him with super-human eloquence—the last effort of the spirit destroys the delusion of the first; for, as heaven is what is not seen, we could not directly contradict such a visionary as to what he saw; but when he speaks according to the ignorance of his character, and the errors of his education, however eloquently, and when he ascribes this flow of language, his warm feelings, and unusually vivid imagination, to the Holy Spirit, he can be contradicted. An ignorant preaching fisherman once demanded of us, "how he, an ignorant, unlettered man as he was, could stand up and preach for an hour, without the assistance of the Holy Spirit?" We replied, *If the Holy Spirit taught you, would he permit you to say so many foolish things, in such bad language, and to be so long about it?* for he was wordy, full of unmeaning nothings, and error. He did not put us to the proof, and we believe he soon left off preaching. Now in this case the man *was inspired;* a poet, a politician, or an orator, is also inspired: that is, some of their faculties are excited, and assume, in consequenc, increased power. Ignorance, or presumption, prophesying of divine things, may then exhibit fanaticism or superstition; ☞ but the prophecies of a wise and intelligent man are different; they are based on knowledge of cause and effect, extensive information, and a powerful mind, which infers what will be from what has been. The prophecies of Thomas Paine were of this character; he *knew* the English court and the *state* of affairs, and he foretold the contents of a proclamation, and answered it before it was written, or at least before it arrived: and so remarkably correct was he on this occasion, that the American government *re*-printed and circulated the proclamation with Mr. Paine's reply. On another occasion Mr. Paine *foretold* that England would offer a separate peace. She *did* offer to make peace *without* making France a party; and the dishonorable proposition was replied to before it was made; and every American mind brought up to the point of honor.

A Supposition.—Now supposing no *new* faculties, but a vast increase of power in some of the old ones, from their greater activity, arising from the concentration of the galvanic fluid on particular organs while all that would distribute them, and all other senses, are rendered dormant by being deprived of their common share of the electric fluid. In such a state, (a possibility,) suppose, also, the power of vision not confined to the common organs—as in the somnambulic state—and greatly excited: such persons *might* see facts not discernible to others; and then, from a knowledge of cause and effect, from faculties rendered *extremely* powerful, a *series* of events could be seen running into futurity. We prophesy thus on a small scale every day. Life is a game of checquers—those absorbed or excited in the game, (if of equal faculties,) see farther into it than others not excited. The *daily* seeing into futurity, or correctly judging of sequences and consequences with precision, constitutes a prudent man, who by that means counteracts evils in prospect, or effects good; or these faculties may be perverted to selfishness; it may contribute to the art of getting rich, by taking advantage of temper and circumstances which he *foresees* will be brought into play.

We shall now give a variety of natural facts from the St. Louis Magnet. We regret the connexion, because these facts would be more powerful without it; but some of them we have met before in medical works, (prior to the time of mesmerism,) and therefore presume that others are equally authentic.—*Beacon.*

[See Fourth number of the "St. Louis Magnet," article on "Clairvoyance," 78th page.]

FOR THE SAINT LOUIS MAGNET.

HOMŒOPATHY

May be considered a heresy in medicine, between whose votaries and the orthodox school a warfare, as bitter as it is *ungentlemanly*, has hitherto been waged. Because its enemies do not tell the truth about it, and because every thing vitally concerning human life and health is matter of deep moment to all; the writer proposes to state briefly and correctly what the claims of homœopathy are, to the favorable notice of the public. In doing this, he feels that his position is much like that of Galileo, when advocating the Copernican theory of the world. He is broaching doctrines which, though true, are unfortunately calculated to strike the common sense of mankind, as being *utterly absurd.* The idea that the sun was fixed, and the earth moved, was so directly opposed to every man's senses and experience, that it was *then* unanimously rejected, though it has since come to receive the universal assent. So it is with homœopathy; those who look beneath the surface of things, and have sufficient industry and ability to investigate and comprehend its great truths, *know* that its doctrines, though now rejected by the unreflecting multitude, are destined, ultimately, to be universally received, and to confer inestimable benefits on the human race. "Truth, though crushed to earth, will rise again." Unfortunately, too, for homœopathy, as with almost every other new discovery, its worst enemies are its inexperienced and incompetent advocates and practitioners. Its great lights cannot now, however, be extinguished by all these difficulties and embarassments, but *must* ultimately work an entire revolution in the principles and practice of medicine.

1st. Homœopathy claims first to have discovered the true principles on which medicines should be given, and to have first established their true curative powers in all diseases, by the *Baconian method of induction.* (Thanks once more to the great lord Verulum). By experimenting with all medicines upon the healthy, their true curative powers on the sick are spread out to view, as it were, in a solar microscope, their minutest effect on every portion of the human organism being shadowed forth in clear magnified perspective. The great law, discovered and promulgated by Hahneman, "*Similia Similibus curanter,*" is as *true* as the Copernican system of the world, and, like that system, with gravitation added by Newton, it is destined to bring *order out of chaos,* in the science of medicine. The chaotic darkness, uncertainty, and never-ending fluctuation, pervading, till then, *all medical science,* has given place to a beautiful *order*, infallible while the world stands. It has operated in the medical world little less than the omnipotent fiat, "let there be light," once did in the natural world. This discovery of the great Hahneman is fully equal to the discoveries of Copernicus and Newton, and is destined to carry his name down to posterity, as one of the greatest luminaries of science, no less than the benefactor of his race; whilst the petty sneers of those whose minds are either too contemptible to comprehend his discoveries, or too dishonest to give him credit for them, will be buried in deserved oblivion.

The second discovery of Hahneman, scarcely less in importance than the first, is, that all medicines given in infiniteismal doses, are far more prompt and powerful in their remedial effects, than when exhibited in sensible quantities; and, indeed, that they never do produce their legitimate curative effects upon the constitution, except when they are thus diluted, *and by a process which charges them at the same time with human electro-magnetism.* When they are attenuated in this manner, so as to become what we may term, a "*subtle medicated magnetism,*" and are dissolved upon the tongue, they at once incorporate with the *nervous fluid of the system, and produce their effect directly on the vital powers of life,* removing their morbid condition. That this discovery is another great truth, is as certain as the Newtonian theory of gravitation. *It is one of the eternal principles of nature,* connected with human life, as fixed as the revolutions of the planets. Those who have any concern with healing the sick, and do not *know* these two great principles to be true, are blameably ignorant of what in this day they might know.

When these great principles are scientifically carried out in their application to the treatment of diseases, their beneficial effects on the health and longevity of the human race, will be a very *high per centage above* what the practice of medicine now exhibits. That homœopathy is,

to-day, altogether superior to Allopathy in the treatment of sm
scarlet fever, measles, croup, cholera, typhus fever, ophthalmia,
diseases, even in the hands of the most bungling practitioner,
that the *community generally have a right to know.* That it is su
the treatment of all diseases, acute as well as chronic, in the ha
skilful practitioner, no good homœopathist, well versed in both
can doubt. That those pretended homœopathists who are too in
investigate diseases and idiosyncrasies thoroughly, and who use
dilutions on all occasions, because they are too lazy to pre
higher, do not always succeed, is very true. But it is sinning
the good gifts of heaven and the light of eternity, to charge these
to homœopathy, instead of charging them to the culpable neglig
indolence of those who pretend to practise what they do not.
who does not legitimately carry out the doctrines and discov
homœopathy, should be permitted to dishonor it by assuming th
The stupid and senseless blundering of blockheads, in the
homœopathy, ought not to prejudice sensible people against th
truths of the science. These truths are fixed and eternal, a
remain so long after they are forgotten.

A word as to the different effects of medicines in a crude s
when prepared homœopathically. Mercury and sarsaparilla, for i
medicines that occupy a prominent place in Allopathy, meet
indications in homœopathy, and those far from being importan
indications of medicines in the two systems, indeed, are very g
different, and, in many cases, diametrically opposite. Homœop
a list of thirty alterative medicines, a large proportion of which a
powerful than mercury. A curious fact developed by homœop
that those substances composing the great proportion of the mas
earth, are found to be the greatest medicines for chronic
generally. Such are silex, carbonate of lime, carbon, sulphur,
of lime, &c.; these, together with graphites and common salt
their crude state, almost inert, but when attenuated and ma
homœopathically, they are made some of the most powerful medic
have.

Homœopathy has been charged with being inefficient in the tr
of intermittent fevers. The writer has not found it so in upw
thirty cases which he has attended the present year. It is true th
labor is required in discriminating symptoms, and in discovering p
Allopathic treatment in cases of relapse, but this carefully do
homœopathy is bound to triumph in the treatment of this scourg
Western country. The easy and safe manner in which fever a

can be gradually but permanently dislodged, by homœopathy, from the system, leaving it sound and uninjured, are such as to be highly satisfactory to its friends.

In conclusion, homœopathy says to suffering humanity,—"cease ruining yourselves with drugs. Do not injure your constitutions, and shorten your days, any longer, with heroic medication. Emetics, cathartics, calomel, quinine, and bloodletting, are *now* unnecessary. We have discovered an easier, safer, and better method of curing all the diseases that can possibly afflict mankind. Our medicines never weaken or injure the most delicate, while they are more powerful in arresting disease, than the strongest doses that can be given." These assertions are not put forth in the spirit of a quack advertisement, to deceive you, and get your money without any consideration, but to do you good. We come, like the good Samaritan, with oil and wine for your wounds.

C. H. H.

MEDICAL.

Green Street, St. Louis, Dec. 10, 1845.

Dr. McNair:

Dear Sir—I feel it my duty to you, to the science of Mesmerism, and suffering humanity, to present you with the facts in respect to my wife's case, for publication, should it meet your approbation.

The case, with which you are well acquainted, as you will recollect, was one of Asthmatic affection, and as difficult a case as is generally met with; at least, this was the character given to it by every physician whom I employed, and I may say, I think they were correct; for the paroxysms were frequent, of long duration, and of a very aggravated character. For six years she had never known herself well, and able to attend to her ordinary business, free from this terrible disease, but a few days at a time, especially in damp or cold weather, until I employed you to try the virtue of *Mesmerism*. I had, for some six years, employed the best physicians, with whom I spent a great deal of money, without, I may say, my wife receiving any particular benefit. It was some time in December, about a year ago, that I was induced to call upon you; having attended some of your lectures upon Mesmerism, I came to the conclusion that there could be no great objection in giving it a few trials, inasmuch as every other practice had failed. From the first time you mesmerized her, she commenced improving, and, in a short time, became able to attend to her ordinary business, as usual, and, with little or no exception, has remained so ever since. This was something unknown to her, from the time she was taken, to the present. How others may feel, in respect to Mesmerism, I care not; but of one thing I am well assured, that nothing else will relieve my wife so quickly and so effectually, when attacked by one of these formidable paroxysms, as Mesmerism. Once mesmerizing now keeps her perfectly free from any difficulty of breathing, and leaves her able to attend to her affairs for weeks at a time; and when she feels the least symptom of the return of disease, I find all that is requisite is to have you come round and mesmerize her, and the whole difficulty is at once removed.

These are the facts with which you are acquainted yourself, and the only object I have in troubling you is, that other fellow beings, who are writhing under this or similar scourges, may be advised of a remedial agent, at once mild and efficient; one which, according to my little experience, does not make the well sick, nor the sick worse; but like the magic touch of the *Saviour* of the world, at once imparts health to the constitution—vivacity to the mind, and physical strength to the body.

Yours, sincerely,
R. E. Bolton.

[We are pleased to hear from our friend Bolton; he speaks out like a *free* man. Would to God there was more moral courage in our world! There is a super-abundance of that physical-animal courage that will cause one man to stand up and be shot at, knocked down, and dragged out—giving and receiving bloody noses and black eyes. These boisterous passions which generate strife—malevolent dispositions, which pull down and destroy, spreading abroad anarchy and contention—are cultivated and improved; in these mankind seem to take a deep interest; they enter into them with a soul and strength worthy a better cause. That meek and lowly disposition, that benevolent mind, through which nothing but peace and good will, love to mankind, manifests itself—which took delight in binding up the broken heart, soothing the afflicted, counselling the foolish, advising the injudicious, healing the sick, and instructing the ignorant, causing the lame to walk, and the sad to rejoice. Glorious philanthropic disposition! noble Christian principle! how sadly neglected! Few there are who dare to walk in thy holy footsteps. Here and there a glimmering star shines forth, casting abroad its genial rays, dispensing health and happiness to all around. But, alas! how soon its rays are repulsed by the *demon* elements with which it is surrounded—dragged forth before the judge of contempt—charged with the crime of humbuggery—prosecuted by derision, and *crucified* between persecution and malignity!!]

Pardon this digression, and we will return to the case of asthma. This patient was past the middle age, and of delicate constitution, quite susceptible of the mesmeric influence, but not sufficiently so to close the auditory nerve. The eyes would close, the head recline, and the arms become immoveable; when the influence was thrown off, she would recollect of having heard every thing that was said, but was perfectly incapable of opening her eyes, moving her arms, or, in fact, of changing her position in any respect whatever, until the influence was removed. I have mesmerized a great many patients who were much more susceptible to its influence, and many who could even be thrown into the *Clairvoyant* state, but I never mesmerized one who seemed to improve more rapidly under its influence than this patient did. We have been called in to see her when it was almost impossible for her to breathe, so severe was the paroxysm. From five to ten minutes was sufficient to remove every difficulty—throw her into a gentle slumber, awakening herself in from three to five hours, feeling quite well. In previous attacks, where the regular practice had been relied on, no relief was afforded. We have also used the magneto-electrical machine in this disease, with signal success. In one case, where, to all appearance, the disease was deeply seated, we succeeded in removing it entirely with the use of this machine alone, requiring but four or five applications. This disease is, however, rather difficult to remove, and, in most cases, requires some length of time.

We tried the virtue of this remedial agent in a case of very severe sprain. A young man fell, and struck upon his elbow joint, which rendered the joint quite useless, not being able to raise his arm without the assistance of the other hand. The pain was intense, and the swelling was more than usual in such cases. We applied the battery; the swelling could be distinctly seen to go down under its action; the pain soon subsided, and, in less than a week, the arm had regained its natural tone and vigor. In every case of a sprained or weak joint, we have found it equally successful.

In cases of griping and diarrhœa, this machine has proven equally successful in our practice. We have tested its virtues very effectually in this disease.

In bilious colic it has proven equally successful. We applied it in a very critical case, which gave immediate relief; removing all pain in some ten minutes, leaving the patient in a healthy condition.

In cases of consumption it has proven the most successful remedial agent ever wielded by physicians. It removes cough, and produces easy and free expectoration, rouses the system into action, equalizing the circulation, giving great tone and vigor to the nervous and m system. Any pain is almost immediately removed from the breast or any part of the system, which leaves the patient free and easy, the best condition for immediate return to health. We have tri several instances, where the hectic flush was deeply, and, to all ance, immoveably fixed upon the cheek, yet we have removed it i minutes, to the perfect astonishment of all those who witnessed it, by the action of this simple apparatus alone. By continuing to it, by the action of the machine, once or twice a day, for a few permanent cure is the result, where the vital organ has not be deeply involved in the disease as to render their return to health sible. There can be no doubt that this machine will prove one most salutary and effectual remedial agents ever wielded agai formidable disease.

A boy came into the room, a few days since, with one ea frosted, while we were applying this machine. We immediately some sponge in cold water, and passed the action of the battery the sponge to the ear. The frost was almost immediately extrac swelling and pain removed, and the ear immediately returned natural condition. The patient, although quite a boy, never com of pain, nor even very disagreeable feelings, through the operation, however, only lasted some five minutes, so quickly does the ap perform its work.

We might fill up our publication with cases which we have successfully with this machine alone, were it advisable. The opi becoming quite prevalent that it will supplant the use of drugs e but this we are not quite prepared to admit, although, we must that it produces in most, if not in all cases of disease, all the which physicians desire to produce by their drugs; which are increase of temperature; secondly, equalization of the circulatio thirdly, tone to the nervous system. When these three effe properly produced, health must, in most cases, be the result. accomplished by this machine, in most cases, more quickly, more ually, and more permanently than is usually effected by medicines most judicious character, without being accompanied with any deleterious effects of drugs, more especially of those which have irritating influence on the vital organs and delicate membranes stomach. This must decrease the bills of mortality at least one ha there can be no doubt in the mind of the close observer, that tho are swept off annually by the irritating influence of drugs upon th organs.

GRADUAL ORIGIN OF BAD HEALTH.

The debility so generally complained of in Spring by invalids and persons of delicate constitutions, and which renders that season of the year so formidable in prospect, and in reality so fatal, seems in numerous instances to result more from the accumulated effects of neglect during the preceding winter months, than from any thing directly inherent in the season itself. At the commencement of winter, such persons feel comparatively strong from the beneficial exposure to the open air, light, and exercise, which they enjoyed during the summer and autumnal months. But, in proportion as they are deprived of these advantages by the advance of winter, and are subjected to the evil consequences of confinement, deficient excercise; cold, damp air, and deprivation of the stimulus of light, the stamina of the constitution become impaired, and debility and relaxation begin to be felt, and make progress from day to day, till, on the arrival of spring, they have reached their maximum, and then either give rise to positive disease, or again gradually disappear at the return of the invigorating influence of longer and warmer days. Where, however, pulmonary disease, or any unusual susceptibility pre-exists, this principle will not apply; for, in such cases, the east winds prevalent in spring are directly injurious.

If the above view be correct, it is obvious that, in most cases, the hurtful cause is not, as is commonly supposed, so much any positive quality of the season, as the accumulated mass of the winter influences then reaching their maximum; and this is not perceived, only because the effect from day to day, although perfectly real, is too small to attract notice, while the aggregate result of the many days composing winter, is striking enough. The fact that those who deny themselves the delight of late parties and crowded rooms, and are sufficiently robust to undergo the necessary exposure in winter, suffer much less in spring, seems to corroborate the above explanation.

We must not suppose, then, that because a single excess of any kind does not produce a direct attack of disease, it is therefore necessarily harmless; for it is only when the nox-agent is very powerful indeed, that its deleterious influence on the system becomes instantly sensible. In the great majority of situations to which man is exposed in social life, it is the continued or the reiterated application of less powerful causes, which gradually, and often imperceptibly, unless to the vigilent eye, effects the change, and ruins the constitution before danger is dreampt of; and hence, the great mass of human ailments is of slow growth, and slow progress, and admits only of a slow cure; whereas, those which are suddenly induced by violent causes, are urgent in their nature, and rapid in their course. And yet, so little are we accustomed to trace diseased action to its true causes, and to distinguish between the essential and the accidental in the list of consequences, that, as already observed, if no glaring mischief has followed any particular practice, within at most twenty-four hours, nine out of ten individuals will be found to have come to the conclusion that it is perfectly harmless, even where it is capable of demonstration that the reverse is the fact.

The benevolence and wisdom of this arrangement are very conspicuous. There are many casual influences from the agency of which man will never be able entirely to protect himself. If they are speedily withdrawn from him, the slight disorder which they produce quickly ceases, and health remains essentially undisturbed. But, if they be left in operation for a considerable length of time, the derangement which they excite gradually and slowly increases, till at last a state of disease becomes established, which requires an equally long or longer period, and a steady observance of the laws of health for its removal.

Such is the history of the rise and progress of most of the ailments which afflict the human family, and the source of the grand distinction between *acute* and *chronic* diseases. We are apt to wonder that a severe disease like inflammation should run its course in a few days, while dyspeptic and nervous ailments require months for their cure. But our wonder is diminished, when we attend to the fact, that the one generally dates its rise from a strong cause applied within perhaps a few hours or a few days; while the others are the slow and gradual results of months of previous anxiety, or neglect of dietetic rules and exercise, during which the ailment was maturing unnoticed and unsuspected. Had the real state of the matter been early perceived, and the causes been removed, the dyspeptic and the nervous invalids would have regained health and serenity in proportionally little time, and with proportionally little suffering. In such cases, nature kindly allows some latitude of action free of serious penalty, as if on purpose to protect us from being hurt by such occasional exposure as we are necessarily subjected to by the ordinary vicissitudes of life; but it is always on condition of returning to obedience the moment the necessity is over. If we presume on the indulgence being permanent, the evil accumulates, and the health is destroyed; but if we return in time to the right path, little inconvenience results. Where, however, the injurious influences are of a more energetic kind, equal latitude of exposure is obviously incompatible with safety.

Were they not to enforce immediate notice, our corporeal organs might be irrecoverably altered by disease before we took the alarm, and it is therefore the purest benevolence to attach immediate suffering to them, in order to insure that instant attention which alone can stay the rapidity of their progress. *Combe's Physiology of Health.*

ON PHRENOLOGY.

Sir: In order to redeem my promise I wish to say a few words on education.

A school is a family, whose sole purpose is *progression from* and *for* the Divine end; and to this purpose all possible discipline must be brought to bear. Theory, as far as mere intellectual conceptions are understood by the term, should be banished; all is practical. *Moral* precept should not be used as the principal, but the illustration of moral being;—intellectual images are not the supply—but the TYPES of genius, and physical prowess not, indeed, a treaties upon gymnastics, but wholesome and temperate action.

Our science is yet in its infancy—but does not everything perfect proceed from a like point?—The *infant* of to-day is the *man* of to-morrow, and it becomes the scientific teacher to deal with the infant so as to produce the improved and the improving man. Indolence, procrastination, or wrapt up selfish ignorant and assumed knowledge, will not meet with encouragement in any part of the world, in this day and age, and least of all in the United States of America. Here men even GUESS with a direct eye to the nature of things, and to moral probability, and seek for their STANDARD, demonstrative truth and certainty.

Lest the minds of some very well meaning persons should still be in doubt whether the phrenologist can keep them to the means of improvement with respect to their youth, I feel it right to caution the readers of philosophical systems, that they are to take no man upon his bare word, and in general to look for less, nor rest satisfied with any testimony short of proof positive. The phrenologist is in a condition to afford this perfect proof—this undeniable demonstration of scientific knowledge—at any place, at any hour of the day or night—in the darkest room, as in the lightest hall,—on the good as on the bad—on the wise as on the foolish. The man of much observation, regularity of life, and profound research, can alone arrive at the capability. He alone who practises virtue can successfully teach the youth of the age.

The phrenologist feels that the educator has taken in hand an affair of paramount importance. As the florist who sows his seed, and during the process of germination and growth carefully tends it, that no hindrance may check its spontaneous vegetation, so the educator takes in hand a lovely plant, and acknowledges with the florist an identity of aim.

But parents even yet are frequently found too full of their own self-importance, to submit to be taught upon this subject, and insist upon their own OLD WAY. To such we can only say, that if you do not progress or move on with the rest of the world, the rest of the world will march off and leave you.

Phrenology has a high claim to attention on the subject of education — perhaps higher than any other. This science asserts that there are universal joys for which the educator must train his pupils accordingly; —these joys are physical, or belonging to the body —intellectual, or belonging to the soul — vital, or belonging to the spirit.

Phrenology therefore requires of the educator to provide his pupils with means of healthful exercise, and to establish them in habits of activity, temperance and cleanliness, in obedience to the physical or organic laws, so as to render his frame a structure of power and strength for light to energise and dwell in — as an instrument for joyful purposes and delightful uses.

Phrenology also requires of the teacher to unfold the whole or greater part of the mental and intellectual faculties, in perfect accordance or harmony with the spiritual laws, which always are in agreement with the natural laws when rightly understood, so that the mind may be *firm in purpose*, strong to act, free to think, and directed by the spirit of truth in all its pleasurable acts and joyful purposes. But, above all, the phrenologist calls upon the virtuous teacher of youth to recognise and cherish those vital sympathies which, deep in the root of existence, unite man with his God — and which it is the educator's bounden duty to use, to remove all obstructive conditions, so that love, in all its highest and holiest purity, may enshrine the soul in its hemisphere of brightness; and in all its loveliness soften the passions into peace, and all the affections into good will towards all men.

(To be continued.)

[*From the N. Y. District School Journal. By the author of the School Friend, &c.*]

LEARNING IN THE MIDDLE AGES.

Ancient books, when written on parchment or paper, were rolled up in scrolls; this parchment or paper was written only on one side, and was rolled on a cylindrical stick, much in the manner of modern maps. The ends of the roll or *volumen*, (whence our modern word *volume*,) were ornamented with knobs or balls of gold or silver, and the title was written on the outside.

At the present day, a large number of books—hundreds or thousands—are struck off at one impression, and dispersed among multitudes of readers, while some are placed in public collections, beyond the reach of accident, and thus may be preserved an incalculable time. The toil of writing out a book produced but a single copy, and books were not only rare, of necessity, but exceedingly dear, being valued sometimes at the price of a considerable estate.

Copying was a business followed in all the chief seats of learning in Egypt, Asia, Greece, &c. The persons so employed, called "librarii," were hired either by booksellers, or those wealthy individuals who could afford to make collections of books. Literature was, in those days, the luxury of the rich. Theatrical exhibitions, or the songs of the itinerant poet or "raphsodist" afforded the poorer classes a substitute for those publications, which the happy invention of the press now disseminates all over the civilized world—to the poor as well as the rich.

Copyists among the Romans belonged to the class of slaves or freedmen. Among the Greeks they were citizens, and educated for this employment. Persons of fortune in the Roman empire were seldom without an amanuensis. Their own works, even their letters, were frequently dictated to the copyists. The Greeks far excelled the Romans in the art of copying.

That period in Europe from the conquest of the southern countries by the barbarians of the north, till the descendants of the conquerors became in their turn civilized men—a period of a thousand years (from the fifth to the fifteenth century)—is called the dark ages. During those ages the production of new books was almost unknown, the reading of such as existed was uncommon, and many of the ancient writings utterly perished. A few Greek and Latin authors, poets, philosophers, and historians, have been preserved.

The invaders of Southern Europe honored nothing that belonged to the conquered nations but their religion. More than four centuries had elapsed since the birth of our Saviour, and the announcement of Christianity. The countries round the Mediterranean had received this religion in some very imperfect form, and had abandoned the worship of pagan gods.

The invaders destroyed, when they took possession of conquered countries, all collections of books that were not contained in monasteries.

The monks not only perpetuated the old learning, but were the historians of their own times — the friends, confessors, and teachers of princes, and other great men. Many among them were the best informed persons of their day, and they recorded for posterity the most important events that came to their knowledge. They were not always the preservers of learning; they delighted in writing the legends of their own superstition, and frequently erased writings from parchment that they might use it for the record of their fables and foolish superstitions. Thus, while they held from destruction many works of great value, they destroyed others equally precious.

In the fourteenth century, many scholars became aware of these depredations on the treasures of antiquity, and Petrarch and other restorers of learning travelled from convent to convent to prevent, if possible, any further demolition among them. The sentiment of reverence for them was extended, and the destruction stayed. The time, with its manifestations of respect for learning and science, and the new inventions that followed the revived study of the old classics, is called, "The Revival of Learning." How infinitely desirable is it that we should never suffer the work to languish which was thus renewed for the healing of the nations. Many of the religious men resided in monasteries, and collected libraries of Greek and Latin books. The invaders, while they destroyed private property, reverenced and spared the habitations and the possessions of the monks, with few exceptions. Heathens themselves, they revered and spared the treasures of religious men, and in the course of time adopted their faith, and acknowledged the Supreme Deity.

The study, the preservation, and the copying of manuscripts, were among the regular duties of the monks. In the larger monasteries, an apartment called the "scriptorium" was devoted to this business. All the ancient learning which remains was preserved in this way.

Besides copyists, there were in the convents persons called illuminators, whose duty it was to embellish the manuscripts by ornamented letters and paintings. Drawings and figures of great beauty were among the "illuminations." These often displayed, with exactness and elegance, the customs, habits, and implements of the age, used in peace or war, and such as remain in public libraries and collections of the curious are of value, as representing the manners of by-gone times.

At the time of the invention of printing, the practice of illuminating was so considerable that six thousand persons, in Paris alone, procured their subsistence by it. It has been followed by engraving, which does for pictures what printing does for thought.

Constantinople, from the fourth to the fifteenth century, was the capital of that division of the Roman state, called the Greek or Eastern Empire. Its last emperor was dispossessed by the Turks in 1453. The Greek and Roman learning had ever been cherished in that capitol. For a long time previous to the taking of Constantinople, its learned men had seen that their barbarous enemies were encroaching more and more, and would at length become their masters: they knew too well the ignorant and destructive spirit of the Turks, and, to escape from it, fled to the countries of Western Europe.

Princes and nobles, popes and scholars, received these learned men with liberal kindness. They brought with them many ancient manuscripts, and offered their services in Italy and France chiefly as the teachers of youth. This instruction taught the people of these countries the value of learning. The art of printing coming into operation soon after, the first works that issued from the press were the Scriptures and the Greek and Latin Classics. Thus were they rescued for ever. Innumerable literary works were burnt or otherwise destroyed in the wars of Egypt, Greece, and Italy, but much of the ancient learning remains—enough to connect past time with the present—enough to admonish us to hold fast to what is good, and to lose nothing through our own negligence and ignorance—enough to invite us to drink from the fountain of wisdom thus kept open to us—enough to urge upon us the duty to add to our virtue and knowledge, and to leave behind us the great inheritance of truth and learning, augmented by our own improvement, and our labors for those who shall live after us.

MESMERISM.

Some few weeks since Professor de Bonneville was almost mobbed, at Richmond, on account of alledged collusion in his mesmeric lectures and experiments. He is now delivering a second course there, by invitation of his friends, and considerable excitement exists among the believers and repudiators of the science.

ON THE PRESERVATION OF HEALTH.

THE GOOD EFFECTS OF FREQUENT BATHING.

With the mercury at ninety degrees of Fahrenheit, what can be more natural, than to spend a few thoughts on the means of *counteracting the ill effects of such excessive heat*? And how can this be better done than by frequent ablutions of the whole body, so that every pore may be kept open, and free passage given to matter which the system rejects, and would fain throw off by perspiration. We write in the full persuasion that bathing is too generally neglected in the country—either from want of thought upon its importance, or want of convenience for its enjoyment; but with a little trouble such convenienee might be provided, wherever there is a good pump, or yet better, where there is a copious spring of water. The facilties should not only be afforded, but those who have charge of families should make it a point to see that they are availed of, by every member under his control. Ask the laboring man, him who labors with mind or body, and who is accustomed to being daily, or very frequently, refreshed with the shower or plunging bath, what would induce him to forego it? Rising in the morning exhausted and languid from the effects of oppressive heat, he comes out from his bath invigorated and capable of thinking so much closer, and working with so much more alertness and satisfaction, that he would much sooner relinquish one meal a day than *give up his bath*. He only who habitually enjoys it can estimate the privation when no means are to be had for the indulgence.

Those who have most studied the art of preserving health, dwell upon *cleanliness of the person*, as next in importance to be considered after *air and food*.

The happiness and success of every farmer depends so much on the health of all his household, that under the most fervid heat that has been felt here for the last ten years, we do not see that we could better devote the space it occupies than in giving to his perusal and reflection, the following paper, which seems to contain about all that need be said on the subject of it:

"This is not a mere matter of decency; it is one of the positive commands arising from the constituted order of things. Be it remembered, that every thing that lives, vegetable or animal, is wasting while life continues; and that all which is sent forth through the millions of openings by the skin has run its round, and is lifeless; and that more than half of all the food taken comes forth in this manner. If perspiration, sensible or insensible, be permitted to rest on the skin, and stop the way of that which is coming, Nature is offended, and will show that she is so. Such neglect is one of the causes of disease. This fact was probably well known to Eastern nations, since it was part of their religious duty to cleanse the skin. These nations were ignorant of the modern comfort of wearing a garment next the skin, which can be frequently changed. The absence of this comfort was one of the causes of those dreadful diseases of which we read, and which are now unknown among Christian nations. There are classes of laborers and mechanics, whose health would be preserved, and their lives prolonged, if they knew how much depended on periodical cleansing.

It may be said that there is a connexion between cleanliness and moral feeling. Perhaps it may be going too far to say, that those who habitually disregard cleanliness, and prefer to be dirty, have no moral perception; but it may be truly said, that those who are morally sensitive are the more so from respecting this virtue. There is a close affinity between moral depravity and physical degradation. The vicious poor are always shockingly filthy; the depraved rich are visited by worse penalties; they may have clean garments; but what can wash away the impurities which vice has made a part of themselves? It is not for one's self only that the virtue of cleanliness commends itself.—Every one comes within the observation of others. However uncleanly one may be himself, he is not the less offended at the like neglect in those whom he observes. Now, it is every one's duty to himself to recommend himself to others, so far as he innocently and reasonably can, and to obtain their respect. Clean and costly garments may fall very short of doing this, if it be seen that they are a covering for the neglect of this important law. If there be a lovely object to the human eye, it is a clean, clear-faced, healthy, innocent, neatly clad, happy child. There are few children who may not, if they will, be neatly dressed, for this does not depend on that of which the dress is made. There are fewer who may not have a clear skin, and healthy look, if they are properly fed, and sleep in pure air. There are none who may not have a clean skin; for we speak to those who are old enough to judge for themselves. And let it be added, for their inducement, that, in obeying the command to be clean, they are performing a moral duty; in neglecting it they are inflicting an evil on themselves in two ways — first, in diminishing their own comfort, second, in losing the esteem of others.

Journal of Agriculture.

☞The article, "*Universal Typography*," is unavoidably postponed.

THE CORAL.

We know not a millionth part of the wonders of this beautiful world.—Leigh Hunt.

There's a living atom in the sea,
  That weaves a flinty shell,
For itself a lasting shroud to be,
  And a home in which to dwell.
In the briny wastes of the ocean waves
  It builds its coral home,
And mocks at the beating surge that laves
  Its dreary abode with foam.

There—there, in the deep cerulean gloom,
  Unnumbered myriad swarms
Are forming a coral home and tomb—
  A shield to their insect forms.
And the rocky sepulchres made fast
  The leagues thus covered o'er;
They uprear a mausoleum vast
  On the ocean's sandy floor.

'Neath the shallow waves of an inland sea,
  Where gentler waters flow,
As bright as flowers on the upland lea,
  The branches of coral grow;
And dredged from their watery element,
  And wrought with skilful care,
To beauty's bower their hues are lent,
  To deck the forms of the fair.

But the coral rocks of the tropic clime,
  Built up 'mid the ocean wave,
And formed of the ocean's briny slime,
  For the coral's home and grave:
How mean would the grandest work compare,
  That pride of man can form,
With the mighty power in progress there—
  The skill of the insect worm!

'Tis a wondrous work to mortal eyes,
  And ocean's waves can tell
Of spreading climes that yet will rise
  From the coral's rocky shell.
On the shores the wind and waves will fling
  The wealth of other lands,
And in time to come their harvesting
  Will be reaped by mortal hands.

THE

SAINT LOUIS MAGNET.

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ELECTRICITY.

Continued from page 196.

Ex. 10.—Rub or grate together two round uncut stones, of quartz, calcedony, cornelian, &c., and a strong phosphoric light and odor will be produced, showing another peculiarity, viz.: that the electric fluid is perceptible to our sense of smelling.

Ex. 11.—Break a large lump of loaf sugar in the dark, or pound it in a mortar, when it will appear covered with a beautiful lambent blue flame. When grocers are sawing up loaves of sugar as samples, the dust is most luminous and beautiful.

Ex. 12.—In grinding coffee, particularly if it be fresh burnt, it will be seen to cling around the lower part of the mill, and also around the cup or basin held to catch it—sometimes so strongly as to cover the sides two inches or more above the general surface.

Ex. 13.—Put upon the same leg a worsted stocking, and over this a silk one. Warm the leg at the fire, and rub the hand over the stockings. This done, slip off the silk stocking suddenly, and the two sides of it will recede from each other, and the whole retain the same shape as if the leg still remained in it.

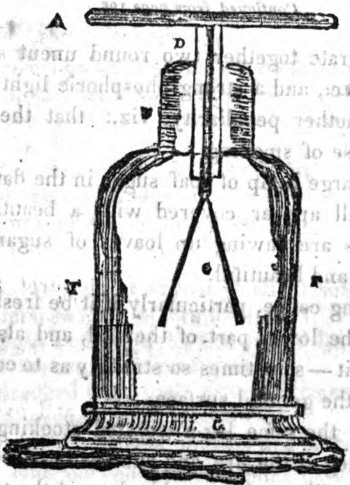
Ex. 14.—Take a glass tube, about two feet long, and an inch in diameter; warm it and rub it with a warm flannel. It will show strong signs of attraction to any light body brought near it.

Ex. 15.—If, while still excited, a light fleecy feather be brought near, it will at first cling to the glass rod, and afterwards fly away from it, and may be driven about a room, by holding the glass between it and any surrounding object. If it should touch anything not electrified, it will fly back to the glass again.

Ex. 16.—Suspend from the ceiling a metallic ball, by a silk cord, and touch it with the excited glass rod. This ball will now attract light bodies in nearly the same manner as the glass rod itself does. This is called *communicated* electricity, while the glass rod acts by *excited* electricity.

These experiments are but a very few which might be devised to show the universality of the electric fluid. They are but transient, because we have employed no instrument to prevent the escape of the fluid put into action, (except, indeed, in the last experiment.) One of the simplest and most useful of them is Bennet's Gold-leaf Electrometer, which will not only have the desired effect, at least for a considerable time, but enable us to show that the most trivial actions we do, in a proportionate degree, display electrical appearances.

THE GOLD-LEAF ELECTROMETER.



A B is a brass plate, (called the cap,) about four inches in diameter, having a wire fastened to the middle of it. This wire passes down the glass tube D, into the glass vessel F F. When the wire has reached about one inch into this vessel, it is slit at the end, and a little bit of card fastened into the slit. A strip of gold leaf, half an inch wide and three inches long, is now pasted upon each side of the card, so as to touch the wire above, and hang free from the glass around. E is a wooden top for the convenience of fastening the part together, and G is a the foot-board or stand of the instrument. At F F, on two opposite sides of the glass, are pasted two slips of tin foil, to carry off the superabundant fluid to the foot of the instrument.

Obs.—A cheap and good substitute for the above may be made of a common six-ounce phial. A wire passing through the cork of it, having the gold leaves within the phial, and a brass *ball* or a bullet above. A lamp glass, also, with a cork above and below, (ball and gold leaves similarly arranged,) answers every purpose; the bit of card, also, is of little consequence; and let it be remarked, once for all, that whenever *glass* apparatus is employed, it must be kept perfectly dry, slightly warm, and free from dust. Of so much consequence is this, that should there have been a failure in any of the simple experiments, it most probably has arisen from neglect of this precaution.

Ex. 17.—Hold near the above instrument any of the excited bodies used before; such as the paper, or the glass rod, and the gold leaves will diverge to a considerable distance from each other, and remain so for some time. A well-excited glass tube will stimulate it at the distance of two or three feet, and must not be brought too rapidly close to it, or the gold leaves will be rent to atoms by the violence of the action.

Ex. 18.—Brush the cap of the electrometer with the feathery part of a quill, and the gold leaves will instantly diverge.

Ex. 19.—Give the cap a blow or two with the corner of a black silk handkerchief, previously warmed, and the friction, small as it is, will be found to have the same effect as before.

Ex. 20.—Place upon the cap a small tin dish or patty pan, having in it a red hot coal, just taken out of the fire. Sprinkle upon the coal a few drops of water; the evaporation of this will set the gold leaves into considerable action.

Ex. 21.—Sift some steel, brass, or other metallic filings, upon the cap of the electrometer, from out of a metallic sieve. These filings become electrical by the friction merely of passing through the holes of the sieve, and will consequently affect the gold leaves.

Ex. 22—Take a knife, with a glass or ivory handle, and cut some small pieces off a slip of deal, so that they shall fall upon the cap as before. Each piece carrying down with it a portion of the fluid disturbed, will, in a similar manner, affect the instrument.

Thus, it will be seen, that a person brushing a coat, cleaning windows, beating a carpet, placing a kettle on the fire to boil, sifting cinders, or planing a board—a school boy rubbing out the lines of his cyphering book, or his master making a pen, is, during the time he is so employed, as effectually an electrical machine as the most elaborate apparatus made by all the art of the optician. Many manufacturers, indeed, find the fluid somewhet inconvenient. In the weaving of different textures, such as bombazine, where worsted and silk are intermixed, the work is very electrical. In the making of chocolate, great care must be taken, that, in cooling in the pans, no dust shall come near it, or it would attract it so much as to become unsaleable, as is the case with sealing wax in large quantities. The grinding of coffee has been already mentioned, and in grinding wheat or malt it is no less conspicuous, though few suppose that electricity assists in making the miller *white*. The workers in amber are so annoyed by its strong, attractive, and easily excitable tendency, as to have the nerves of their hands and wrists disagreeably acted upon.

[*To be continued.*]

BULWER ON WATER CURE.

[The following interesting article, from the pen of the celebrated Bulwer, is taken from Shew's "Water Cure Journal," just commenced in New York.]

Here we are, Mr. Editor, in these days of cant and jargon, preaching up the education of the mind, forcing our children under melon-frames, and babbling to the laborer and mechanic, "Read, read, read," as if God had not given us muscles, and nerves, and bodies, subjected to exquisite pains and pleasures—as if the body were not to be cared for and cultivated as well as the mind; as if health were no blessing, instead of that capital good without which all other blessings, save the hope of health eternal, grow flat and joyless; as if the enjoyment of the world in which we are was not far more closely linked with our physical than our mental selves; as if we were better than maimed and imperfect men, so long as our nerves are jaded and prostrated, our senses dim and heavy, our relationship with nature abrigded and thwarted by the jaundiced eye, and falling limb, and trembling hand—the apothecary's shop between us and the sun! For the mind, we admit, that to render it strong and clear, habit and discipline are required, How deal we—(especially we, Mr. Editor, of the London world—we of the literary craft—we of the restless, striving brotherhood)—how deal we with the body? We carry it on with us, as a post-horse, from stage to stage. Does it flag?—no rest! give it ale or the spur. We begin to feel the frame break under us; we administer a drug, gain a temporary relief, shift the disorder from one part to another, forget our ailments in our excitements, and when we pause at last, thoroughly shattered, with complaints grown chronic, diseases fastening to the organs, send for the doctors in good earnest, and die, as your predecessors and your rival died, under combinations of long neglected maladies, which could never have been known had we done for the body what we do for the mind—made it strong by discipline, and maintained it firm by habit.

Not alone calling to recollection our departed friends, but looking over the vast field of suffering which those acquainted with the lives of men who think and labor cannot fail to behold around them, I confess, though I have something of Canning's disdain of professed philanthropists, and do not love every knife-grinder as if he were my brother — I confess, nevertheless, that I am filled with an earnest pity, and an anxious desire seizes me to communicate to others that simple process of healing and well-being which has passed under my own experience, and to which I gratefully owe days no longer weary of the sun, and nights which no longer yearn for, and yet dread, the morrow.

And now, Mr. Editor, I may be pardoned, I trust, if I illustrate, by my own case, the system I commend to others.

I have been a workman in my day. I began to write and to toil, and to win some kind of a name, which I had the ambition to improve, while yet little more than a boy. With strong love for study in books — with yet greater desire to accomplish myself in the knowledge of men, for sixteen years I can conceive no life to be more filled by occupation than mine. What time was not given to action was given to study; what time not given to study, to action — labor in both. To a constitution naturally far from strong, I allowed no pause or respite. The wear and tear went on without intermission; the whirl of the wheel never ceased. Sometimes, indeed, thoroughly overpowered and exhausted, I sought for escape. The physicians said, "Travel," and I travelled. "Go into the country," and I went. But in such attempts at repose all my ailments gathered round me — made themselves far more palpable and felt. I had no resource but to fly from myself; to fly into the other world of books, or thought, or revery — to live in some state of being less painful than my own. As long as I was always at work, it seemed that I had no leisure to be ill. Quiet was my hell.

At length the frame thus long neglected, patched up for a while by drugs and doctors, put off and trifled with as an intrusive dun, like a dun who is in his rights, brought in its arrears — crushing and terrible, accumulated through long years. Worn out and wasted, the constitution seemed wholly inadequate to meet the demand. The exhaustion of toil and study had been completed by great anxiety and grief. I had watched, with alternate hope and fear, the lingering and mournful death-bed of my nearest relation and dearest friend — of the person around whom was entwined the strongest affection my life had known, and when all was over, I seemed scarcely to live myself.

At this time, about the January of 1844, I was thoroughly shattered. The least attempt at exercise exhausted me. The nerves gave way at the most ordinary excitement. A chronic irritation of that vast surface we call the mucous membrane, which had defied for years all medical skill, rendered me continually liable to acute attacks, which, from their repetition and increased feebleness of my frame, might at any time be fatal. Though free from any organic disease of the heart, its action was morbidly restless and painful. My sleep was without refreshment. At morning I rose more weary than I laid down to rest.

Without fatiguing you and yonr readers further with the *longa cohors* of my complaints, I pass on to record my struggle to resist them. I have always had great faith in the power of the WILL. What a man determines to do, that, in ninety-nine cases out of the hundred, I hold that he succeeds in doing. I determined to have some insight into a knowledge I had never attained since manhood—the knowledge of health.

I resolutely put away all books and study, sought the airs which the physicians esteemed the most healthful, and adopted the strict regimen on which all the children of Æsculapius so wisely insist. In short, I maintained the same general habits as to hours, diet, (with the exception of wine, which, in moderate quantities, seemed to me indispensable,) and, so far as my strength would allow, of exercise, as I found afterwards instituted at hydropathic establishments. I dwell on this to forestal, in some manner, the common remark of persons not well acquainted with the medical agencies of water—that it is to the regular life which water-patients lead, and not to the element itself, that they owe their recovery. Nevertheless, I found that these changes, however salutary in theory, produced little, if any, practical amelioration in my health. All invalids know, perhaps, how difficult, under ordinary circumstances, is the alteration of habits from bad to good. The early rising, the walk before breakfast, so delicious in the feelings of freshness and vigor which they bestow upon the strong, often become punishments to the valetudinarian. Headache, langor, a sense of weariness over the eyes, a sinking of the whole system towards noon, which seemed imperiously to demand the dangerous aid of stimulants, was all that I obtained by the morning breeze and the languid stroll by the sea-shore. The suspension from study only afflicted with intolerable *ennui*, and added to the profound dejection of the spirits. The brain, so long accustomed to morbid activity, was but withdrawn from its usual occupations to invent horrors and chimeras. Over the pillow, vainly sought two hours before midnight, hovered no golden sleep. The absence of excitement, however unhealthy, only aggravated the symptoms of ill health.

It was at this time that I met, by chance, in the library at St. Leonard's, with Captain Claridge's work on the "Water Cure," as practised by

Priessnitz at Græfenberg. Making allownance for certain exaggerations therein, which appeared evident to my common sense, enough still remained, not only to captivate the imagination and flatter the hopes of an invalid, but to appeal with favor to his sober judgment. Till then, perfectly ignorant of the subject, and the system, except by some such vague stories and good jests as had reached my ears in Germany, I resolved at least to read what more could be said in favor of the *ariston udor*, and examine dispassionately into its merits as a medicament. I was then under the advice of one of the first physicians of our age. I had consulted half the faculty. I had every reason to be grateful for the attention, and to be confident in the skill, of those whose prescriptions had, from time to time, flattered my hopes and enriched the chemist. But the truth must be spoken — far from being better, I was sinking fast. Little remained to me to try in the great volume of the herbal. Seek what I would next, even if a quackery, it certainly might expedite my grave, but it could scarcely render life, at least the external life, more unjoyous. Accordingly, I examined, with such grave thought as a sick man brings to bear upon his own case, all the grounds upon which to justify to myself an excursion to the snows of Silesia. But I own, that in proportion as I found my faith in the system strengthen, I shrunk from the terrors of this long journey to the rugged region in which the probable lodging would be a laborer's cottage, and in which the Babel of a hundred languages, (so agreeable to the healthful delight in novelty — so appalling to the sickly despondency of a hypochondriac) would murmur and growl over a public table spread with no tempting condiments. Could I hope to find healing in my own land, and not too far from my own doctors in case of failure, I might indeed solicit the watery gods — but the journey! I, who scarcely lived through a day without leech or potion — the long, gelid journey to Græfenberg — I should be sure to fall ill by the way, to be clutched and mismanaged by some German doctor, to deposit my bones in some dismal churchyard on the banks of the Father Rhine.

While thus perplexed, I fell in with one of the pamphlets written by Dr. Wilson, of Malvern and my doubts were solved. Here was an English doctor, who had himself known more than my own sufferings, who, like myself, had found the pharmacopœia in vain — who had spent ten months at Græfenberg, and left all his complaints behind him — who, fraught with the experience he had acquired, not only in his own person, but from scientific examination of cases under his eye, had transported the system to our native shores, and who proffered the proverbial salubrity of Malvern air and its holy springs to those who, like me, had ranged in vain from simple to mineral, and who had become bold by despair — bold enough to try if health, like truth, lay at the bottom of a well.

I was not then aware that other institutions had been established in England of more or less fame. I saw in Dr. Wilson the first transporter, at least as a physician, of the Silecian system, and did not pause to look out for other and later pupils of this innovating German school.

I resolved, then, to betake myself to Malvern. On my way through town I paused, in the innocence of my heart, to inquire of the faculty if they thought the water cure would suit my case With one exception, they were unanimous in the vehemence of their denunciations. Granting even that in some cases, especially of rheumatism, hydropathy had produced a cure, to my complaints it was worse than inapplicable — it was highly dangerous — it would probably be fatal. I had not stamina for the treatment; it would fix chronic ailments into organic disease; surely it would be much better to try what I had not yet tried. What had I not yet tried? A course of prussic acid! Nothing was better for gastric irritation, which was no doubt the main cause of my suffering! If, however, I were obstinately bent upon so mad an experiment, Dr. Wilson was the last person I should go to. I was not deterred by all these intimidations, nor seduced by the salubrious allurement of the prussic acid under its scientific appellation of hydrocyanic. A little reflection taught me that the members of a learned profession are naturally the very persons least disposed to favor innovation upon the practises which custom and prescription have rendered sacred in their eyes. A lawyer is not the person to consult upon bold reforms in jurisprudence. A physician can scarcely be expected to own that a Silesian peasant will cure with water the diseases which resist an armament of phials. And with regard to the peculiar objections to Dr. Wilson, I read in his own pamphlet attacks upon the orthodox practice sufficient to account for, perhaps to justify, the disposition to depreciate him in return.

Still, my friends were anxious and fearful. To please them, I continued to inquire, though not of physicians, but of patients. I sought out some of those who had gone through the process. I sifted some of the cases of cure cited by Dr. Wilson. I found the account of the patients so encouraging, the cases quoted so authentic, that I grew impatient of delay. I threw physic to the dogs, and went to Malvern.

It is not my intention, Mr. Editor, to detail the course I underwent. The different resources of water as a medicament are to be found in many works easily to be obtained, and well worth the study. In this letter I suppose myself to be addressing those as thoroughly acquainted with the system as myself was at first, and I deal, therefore, only in generals.

The first point which impressed and struck me was, the extreme and utter innocence of the water-cure in skilful hands — in any hands, indeed, not thoroughly new to the system. Certainly, when I went, I believed it to be a kill or cure system. I fancied it must be a very violent remedy —that it doubtless might effect great and magical cures; but that if it failed it might be fatal. Now, I speak not alone of my own case, but of the immense number of cases I have seen: patients of all ages; all species and genera of disease; all kinds and conditions of constitution, when I declare, upon my honor, that I have never witnessed one dangerous symptom produced by the Water Cure, whether at Dr. Wilson's or the other hydropathic institutions which I afterwards visited; and though, unquestionably, fatal consequences might occur from gross mismanagement, and as unquestionably have so occurred at various establishments, I am yet convinced that water, in itself, is so friendly to the human body, that it requires a very extraordinary degree of bungling, of ignorance, and presumption, to produce results really dangerous—that a regular practitioner does more frequent mischief from the misapplication of even the simplest drugs, than a water doctor of very moderate experience does, or can do, by the misapplication of his baths and friction. And here I must observe, that those portions of the treatment which appear to the uninitiated the most perilous, are really the safest—such as the wet-sheet packing, and can be applied with the most impunity to the weakest constitutions; whereas those which appear, from our great familiarity with them, the least startling and the most innocuous—the plunge-bath, the Douche, are those which require the greatest knowledge of general pathology and the individual constitution. I shall revert to this part of my subject before I conclude.

The next thing that struck me was, the extraordinary ease with which, under this system, good habits are acquired and bad habits relinquished. The difficulty with which, under orthodox medical treatment, stimulants are abandoned, is not here witnessed. Patients accustomed, for half a century, to live hard and high, wine-drinkers, spirit-bibbers, whom the regular physician has sought in vain to reduce to a daily pint of sherry, here voluntarily resign all strong potations—after a day or two cease to feel the want of them, and reconcile themselves to water as if they had drank nothing else all their lives. Others who have had recourse for years and years to medicine—their potion in the morning, their cordial at noon, their pill before dinner, their narcotic at bed-time—cease to require these aids to life, as if by a charm. Nor this alone. Men to whom mental labor has been a necessary—who have existed on the excitement of the passions and the stir of the intellect, who have felt, these withdrawn, the prostration of the whole system—the lock to the wheel of the entire machine—return at once to the careless spirits of the boy in his first holiday.

Here lies a great secret; water thus skilfully administered is in itself a wonderful excitement; it supplies the place of all others: it operates powerfully and rapidly upon the nerves, sometimes to calm them, sometimes to irritate, but always to occupy. Hence follows a consequence which all patients have remarked—the complete repose of the passions during the early stages of the cure; they seem laid asleep as if by enchantment. The intellect shares the same rest. After a short time, mental exertion becomes impossible; even the memory grows far less tenacious of its painful impressions; cares and griefs are forgotten; the sense of the present absorbs the past and future; there is a certain freshness and youth which pervade the spirits, and live upon the enjoyment of the actual hour. Thus, the great agents of our mortal wear and tear—the passions and the mind—calmed into strange rest. Nature seems to leave the body to its instinctive tendency, which is always towards recovery. All that interests and amuses is of a healthy character. Exercise, instead of being an unwilling drudgery, becomes the inevitable impulse of the frame braced and invigorated by the element. A series of reactions is always going on—the willing exercise produces refreshing rest, and refreshing rest willing exercise. The extraordinary effect which water taken early in the morning produces on the appetite, is well known amongst those who have tried it, even before the Water-Cure was thought of; an appetite it should be the care of the skilful doctor to check into moderate gratification; the powers of nutrition become singularly strengthened; the blood grows rich and pure; the constitution is not only amended—it undergoes a change.

The safety of the system, then, struck me first; its power of replacing, by healthful stimulants, the morbid ones it withdrew, whether physical or moral, surprised me next; that which thirdly impressed me was no less contrary to all my preconceived notions. I had fancied that, whether good or bad, the system must be one of great hardship, extremely repugnant and disagreeable. I wondered at myself to find how soon it became so associated with pleasurable and grateful feelings as to dwell upon the mind amongst the happiest passages of existence. For my own part, despite all my ailments, or whatever may have been my cares, I have ever found exquisite pleasure in that sense of *being* which is, as it were, the conscience, the mirror of the soul. I have known hours of as much and as vivid happiness as perhaps can fall to the lot of man; but amongst all my most brilliant recollections, I can recall no periods of enjoyment at once more hilarious and serene than the hours spent on the lonely hills of Malvern—none in which nature was so thoroughly possessed and appreciated. The rise from a sleep as sound as childhood's; the impatient rush into the open air, while the sun was fresh, and the birds first sang; the sense of an unwonted strength in every limb and nerve, which made so light of the steep ascent to the holy spring; the delicious sparkle of that morning draft; the green terrace on the brow of the mountain, with the rich landscape wide and far below; the breeze that once would have been so keen and biting, now but exhilarating the blood, and lifting the spirits into religious joy; and this keen sentiment of present pleasure rounded by a hope sanctioned by all I felt in myself, and nearly all that I witnessed in others — that that very present was but the step, the threshold, into an unknown and delightful region of health and vigor — a disease and a care dropping from the frame and the heart at every stride.

But here I must pause, to own that, if on the one hand the danger and discomforts of the cure are greatly exaggerated, (exaggerated is too weak a word,) so on the other hand, as far as my own experience, which is, perhaps, not inconsiderable, extends, the enthusiastic advocates of the system have greatly misrepresented the duration of the curative process. I have read and heard of chronic diseases of long standing cured permanently in a very few weeks. I candidly confess that I have seen none such. I have, it is true, witnessed many diseases perfectly cured — diseases which had been pronounced incurable by the first physicians, but the cure has been long and fluctuating. Persons so afflicted, who try this system, must arm themselves with patience. The first effects of the system are, indeed, usually bracing, and inspire such feelings of general well-being, that some think they have only to return home, and carry out the cure partially, to recover. A great mistake — the alterative effects begin long after the bracing — a disturbance in the constitution takes place, prolonged more or less, and not till that ceases does the cure really begin. Not that the peculiar "crisis" sought for so vehemently by the German water-doctors, and usually under their hands manifested by boils and eruptions, is at all a necessary part of the cure; it is, indeed, as far as I have seen, a rare occurrence. But a critical action, not single, not confined to one period, or one series of phenomena, is at work, often undetected by the patient himself, during a considerable (and that the latter) portion of the cure in most patients where the malady has been grave and where the recovery becomes permanent. During this time, the patient should be under the eye of his water-doctor.

PHRENOLOGICAL DEVELOPMENTS OF DR. SAMUEL THOMSON,

AUTHOR OF THE THOMSONIAN SYSTEM OF MEDICAL PRACTICE.

The Phrenological Almanac for '45, published by O. S. & L. N. Fowler, 131 Nassau Street, New York, says, "It is due to science that it should give some account of the phrenological developments of so conspicuous a public man as Dr. Samuel Thomson. Now that he is dead—now that those party asperities are partly subsided, which existed when he lived, it is desirable to put on permanent record the true phrenological character of this renowned man. And the more so, because these developments will not budge one hair's breadth to the favorable estimation of friends, or the violent hostilities of enemies.

His *character* I shall not attempt to give, but simply his *organization*. What he was, and what not, is left for others to say. The *developments alone* concern us.

His head was about the average in point of size: I think 21 3-4 inches in circumference. It might have been larger or smaller by a quarter of an inch. In person he was rather large, at least of full size, full chested, and rather stout built; weighing about 150 pounds. His Organization indicated great compactness, density and vigor, as well as capacity to endure and accomplish. His hair was rather thin, and his Organization not as fine as it was powerful. Hence, while he would secure friends and make impressions, he would yet sometimes offend a refined taste. His three largest organs were Firmness, Approbativeness, and Causality. To say that he was obstinate, even to mulishness, is strictly correct. This organ was supported by large Combativeness. His organs say that he courted opposition. His anger, owing to the same cause, was powerful and quick, and his hatred cordial and powerful. He had all the organs that contributed to give force of character. Difficulties only stimulated him. Nothing daunted him. He looked upon nothing as too great to be accomplished. This was a remarkable element of his character, judging from his head. Severity was also indicated.

All the social organs were large; Amativeness particularly so. This, combined with the last point, would render him beloved or hated in the *extreme;* because his likes and dislikes partook of the same character—a two-edged sword, that cut one way or the other. Appetite was strong. So were the organs of making money. Secretiveness, according to the best of my recollection, was small; so much so, as to render him blunt;

and Ideality being deficient, rather uncouth, not qualified, and too sweeping and positive. Cautiousness was not extreme. Self-esteem was small. This would seem to conflict with the general impression entertained of his character in this respect. I recollect that it was small, and that I was surprised at finding it so. But his Approbativeness was enormous. This, next to Firmness, was his ruling faculty. On this point, he was weak, (I speak of the organs, and not of his actual character, when I say what he was and what he was not). He was very vain, and pushed himself and his system beyond account.

I do not remember certainly about the size of Conscientiousness, but my impression is pretty distinct that he had it large. If so, it worked with Approbativeness, to give him regard for his MORAL character, and with Combativeness, to make him defend the right. At all events, he had no deception; loved and spoke the truth, and was not naturally cunning or double-faced.

Veneration and Marvellousness were both small—too small to exert any perceptible influence in his character. He was sceptical and radical, and had no regard for the old or sacred. Nor was he particularly religious. Any thing else sooner.

Benevolence stood out conspicuously, indicating that he had the good of his fellow men at heart. He would make men happier and better. Mechanical ingenuity was good. Imitation was small, but Causality, as seen in the cut, was large. Hence, he would strike out a new track of his own—would follow no pattern; would exhibit an originally inventive genius.

The general cast, tone, and tenor of his genius, was that of a plain, practical, common-sense man. He saw things in a correct light. He exhibited great *judgment*, and power of *creating*, as well as of adapting ways and means to ends. Still, his talents were of the sound, deep, reasoning cast, rather than of the showy or glaring. He resembled a fire made of hard wood, or of coal, not of shavings or pine wood. His discriminating faculties were also great: his power of analysis, discernment, generalization, &c., were great, and constituted a leading element of his talents.

He had a very uneven head, which indicated an uneven, strongly marked, peculiar, striking, original, eccentric character, and one that would make some noise in the world. He could not live in a corner, or die unknown.

A head thus organized, would be given to excesses in some quarters, and deficiencies in others. Many of the former would result from mere impulses that did not enter into the constituent elements of his character. More blame, therefore, would be laid on him than really belonged to him, and less allowances made than were proper and due. He could not labor in vain, but would effect some great work, in whatever direction he expended his powers. He would be likely to live to a good age, for his constitution was powerful, and liable to go through what would kill most men. Extraordinary vigor and elasticity are imparted by this temparament, and more of the powerful than of the attractive, or the smooth and pretty." O. S. FOWLER.

MORAL INSANITY.

No other variety of mental disorder is calculated to occasion so much difficulty to commissioners or other visitors of lunatic asylums, or to give rise to so much perplexity in courts of justice, as that unsoundness which is termed, "*Moral Insanity*." It is defined to be an affection in which the sentiments, habits, and, generally speaking, the moral feelings, rather than the intellectual faculties, are in a preternatural and disordered state. The common distinctive character of all these cases is of a negative kind, viz.: that the faculties of the understanding remain apparently unimpaired, and that no delusive impression can be detected in the mind of the patient which may account for the perversion of his moral dispositions. Cases of this description were formerly looked upon as unaccountable phenomena. They are, however, now recognized as a distinct form of mental disorder in nearly all the public asylums. They are characterized by a total want of self-control, with an inordinate propensity to excesses of various kinds — among others, to intoxication. This is often followed by an attack of mania, which, however, speedily subsides when the patient is confined, but is generally reproduced by the same exciting cause soon after he is discharged.

Many of the inmates who are apparently convalescent, whose conversation betrays no trace of intellectual aberration, and who present themselves to the commissioners as having a right to their release, are still so far disordered in their moral dispositions and habits, that nothing but the control implied in their detention within a lunatic asylum, keeps them from displaying their disease. Some of these persons are still extremely dangerous, and the discrimination of their state is one of the greatest difficulties connected with the management of the insane. * The following instance is recorded in the report:—An epileptic lunatic, sufficiently recovered to be allowed to work on the farm of the proprietor, escaped from Gateshead Fell. He was pursued, but the wife of the patient interceded, and, as he was apparently rational, he was allowed to stay at large. Only two nights after his escape, he murdered his wife and daughter in a most horrid manner!

A case, recorded in the report of an American Asylum, is not less striking:—A black man, a lunatic, who was confined in an asylum, had followed the trade of a butcher. He had been confined many years, but, from his showing no violence, was considered harmless, and allowed the range of the asylum. One night the black butcher secreted a knife: he induced another patient to enter his cell, prevailed upon him to lie down, and then cut his throat; he afterwards calmly cut him in quarters, and distributed the joints around his cell, as he had been in the habit of arranging meat in his shop. He solicited the custom of his comrades, and to those who were chained, he carried such portions as they desired. The keeper was disturbed by their cannibal rejoicing. On examining the cells, he found one man missing. He asked the black butcher if he had seen him, and the latter replied that he had just sold the last joint! This is an extreme case, but instances are known in every large asylum, displaying a total perversion of all moral feelings and social affections, while the sense and intellect survive, nay, are even lively and acute—a fact which ought to convince us that illusions and other passable defects of the understanding are not the most essential and necessary concomitants of insanity.—*Lon. Med. Gaz.*

LECTURES ON NEUROLOGY.

[We learn, through the agency of the Botanico-Medical Recorder, that Dr. Buchanan is now in Cincinnati, lecturing upon his favorite science, Neurology, and we are highly gratified to learn that the Dr. is eliciting profound attention, from the talented citizens of Cincinnati, to his able and instructive lectures. We take a pleasure in presenting our readers with a synopsis of those lectures, which we copy from the Recorder, edited by Prof. Curtis, of Cincinnati.]

DR. BUCHANAN'S LECTURE, on Monday evening, was strictly preliminary or introductory. He remarked that he felt proud to appear again before the citizens of Cincinnati, since his predictions had been fulfilled as to the progress of Neurology. Five years ago, not a man in the civilized world believed in the possibility of exciting the brain, and thus making physiological discoveries. When he announced his discovery in 1841, it was received with universal incredulity, ridicule, and opposition; but already the discovery had spread through America and Europe, had been demonstrated in every city, and had disarmed the violent prejudices which it at first encountered. It had been carried before the public in conjunction with animal magnetism; and, although the experiments had been made in an unphilosophical manner, and, generally, by incompetent persons, they had proved convincing to the liberal minded, and aroused a spirit of inquiry. He repudiated all connection with the Mesmeric exhibitors, whom he considered ignorant of the principles of Neurology, but referred to Prof. Caldwell, Prof. Curtis, Rev. Mr. Stuart, and several other scientific gentlemen, as well informed in reference to his principles, and capable of presenting them properly before the public.

He defined NEUROLOGY as the science of the whole nervous matter of the body, and especially of its paramount organ, the brain. This nervous matter being the seat of life and mind, Neurology must be, in fact, the whole science of man — a complete system of Anthropology.

He demonstrated forcibly, that the brain is the organ of the mind, and the seat of all our physiological as well as mental powers — that all mentality and all physiology concentrate in this master organ, and that the only mode of rendering physiology or medicine an exact science, was to discover the functions of the brain. This had not been done by the professors of medical science — it had been attempted by Dr. Gall and his followers, but they had not completed the undertaking, and could not make a science of exactness or certainty by means of Craniology. A new method of exploring the brain must be discovered, or we must for ever rest in Egyptian darkness in reference to the most important knowledge in the whole circle of sciences.

Neurology offers the key to this knowledge by showing the impressibility of the brain. The sole question is, Can the brain be excited or not? If it can, we can build up a magnificent science by such experiments — if it cannot, all is delusion, and we cannot trust our senses.

He proposed to prove that the hand could affect the brain, by experimenting upon any number of the audience, who might come forward. Some eighty or a hundred persons then advanced to the platform, and he began to test their impressibility by applying his hand to their heads upon the frontal organs. He remarked that all those who came forward were entire strangers to him, but that from their appearance he believed that a number would be found impressible. About thirty or forty were tested publicly, and about four-fifths of the whole number experienced sensible effects when he applied his hand to the head. The effects were similar in all — weakness, trembling of the knees, swimming of the head, unsteadiness of position, accelerated action of the heart, and an attraction to follow the hand of the operator, were the principal results produced. Several were drawn forward by his attraction, in spite of their utmost resistance.

The second lecture of Dr. Buchanan was attended by a large and intelligent audience, and was devoted to a consideration of the different views of the human constitution which have been taken by mental philosophers, phrenologists, physiologists, and the cultivators of animal magnetism. These doctrines he compared with the science of Neurology, showing that they are defective in certain essential facts, which facts are supplied by Neurology alone. Metaphysical philosophy he considered a mere analysis of our powers, reducing all our faculties to certain simple elements. The more perfect the analysis, the less we know when it is completed. A metaphysician, instead of recognizing the variety of powers admitted by phrenologists, recognizes only a few primitive faculties from which he forms all others. The more perfect his analysis, the fewer faculties he recognizes. One philosopher may recognize ten faculties, another will analyze the ten and reduce them to two or three. One may recognize memory, comparison, and reason; another may prove by analysis that those three powers are only various forms of the power of association. In short, our practical knowledge of man all evaporates in the alembic of metaphysics, which reduces our faculties to the smallest possible number, and, when the analysis is perfected, carries us back to the starting point, that we have one power which cannot be analyzed any further, which power is *the mind.*

Phrenologists, avoiding this destructive analaysis, look at human nature as it is, instead of looking for a theoretical substratum. They are in advance of the Metaphysicians, as the Chemists are in advance of the Alchemists. They recognize certain faculties and passions as essentially distinct, and, like the simple bodies of chemistry, not to be confounded; and not composed of the same ultimate elements. They seek to locate these faculties and passions in the brain, and, in the general results, they are sustained by the common sense of mankind. But it is impossible to form an accurate science by Craniology, on accoont of the irregular and uncertain thickness of the skull. Nor does the prevalent system of Phrenology pretend to develope all the functions of the brain. The basilar region of the brain is beyond its observation, and the physiological functions of the brain are entirely overlooked. Phrenology explains only its mental, not its physiological, powers. It is, therefore, a very partial view of the human constitution.

Physiology and Anatomy explain our bodily constitution and functions, but without explaining the source or moving power of all these functions. While they refer every thing to the brain and nerves as the source or seat of every function, they tell us nothing of the powers of the brain itself, which is the master of all. They deal in facts or effects without causes — they are too mechanical — they are not philosophical.

Mesmerism explains nothing — it contributes a stock of wonderful facts without any explanation; and thus sheds a flashing meteoric light over the constitution of man, but leaves us enveloped in night and mystery.

Neither of these is a system of Anthropology, nor do all of them put together make a complete science of man. They are unconnected — they are partial surveys of the human constitution. Metaphysics offers us a mental alchemy — Phrenology a comparison of the mind and the brain — Physiology a survey of the body — Mesmerism a collection of wonders. These fragments of the true Anthropology, uncombined as they are, resemble the planets of the solar system, void of a sun, wandering in separate orbits, and often in collision with each other. The brain is the sun, the centre of the true system of Anthropology. Physiology is but its downward influence, its manifestation in the body — Phrenology presents its upward influence, its manifestations in mind — which are still farther elucidated by metaphysical inquiry and mesmeric experiments. Neurology, taking the brain as its centre, and tracing therefrom the subordinate sciences of its effects, unites them in one harmonious system — a full and perfect Anthropology — tracing the relations of man upward to his Creator — around to his fellow-beings — and downward to inorganic matter — giving to the whole the exactness and certainty of a vigorous demonstration by experiment.

Several gentlemen then came forward, and, upon being tested, gave decided indications of impressibility. Dr. B. then requested one of them to try the strength of his arm in lifting, and he sustained two chairs at arms length, with several pounds weight upon them. Dr. B. then applied his hand upon the head in front of the ear, so as to excite the organs producing muscular debility, and in a short time the strength of the young gentleman was so diminished that he could not lift the chairs alone by the utmost exertion that he could make. He then placed his hand before the upper posterior part of the head, and removed the former influence so as to obviate the painful sensations produced by the experiment in the muscles of the arm. Two other gentlemen, intelligent, middle aged, and rather robust, were then tried in the same manner, with still more striking effect; one of them seemed almost paralyzed by the debilitating operation, but was speedily enabled, by exciting some of the upper occipital organs, to make a free display of his strength. These demonstrations were considered very striking and satisfactory.

HOMŒOPATHY.

The term Homœopathy is derived from two Greek words, meaning *similar affection*, and is indicative of the leading principle of the science. To illustrate this principle, which is expressed more fully in Latin by the words, "*similia similibus curantur*," let me bring an instance familiar to every one. Our board of health are now obeying this great law, by directing vaccination to be performed. While they condemn homœopathy openly, they are actually practising it by introducing into the systems of our citizens a *similar affection* to the small-pox to cure small-pox, or prevent it. This is nothing but homœopathic treatment. Kine pox, like every other true homœopathic remedy, is prophylactic of small-pox, *only* because it is *such* a *similar affection* as renders it a *specific cure* for it. Small-pox, when introduced into the cow, is altered by going through this animal, so that when re-introduced into man, it is no longer *identical* with small-pox, but *similar*, though only slightly different. This *slight change* which the virus undergoes in the cow, brings it beautifully within the great homœopathic law, "*similia similibus curantur*," and renders it such a great preservative of our race from the ravages of the small pox. This is a single instance of that same homœopathy which every one feels privileged to sneer at, while, perhaps, he is indebted for his *own life* to the operation of this very principle. Homœopathy has discovered similar cures and prophylactics for scarlet fever, measles, Asiatic cholera, and epidemic typhus, that the vaccine virus is for small-pox, and has the same *perfect control* over these diseases. The medical profession, while they are willing to appropriate these great discoveries to their own use, are yet trampling on homœopathy with the same vindictive and stormy hatred that the Jews manifested in endeavoring to exterminate Christianity, because it dared to question and condemn their doctrines and practises. This method of meeting great scientific discoveries, savors more of the reception Galileo and his doctrines met with, a "long time ago," than it does of the civilization and intelligence of the nineteenth century.

C. H. H.

PHRENOLOGY.

The phrenologist most earnestly appeals to parents, and instructors of every class, kind, and degree, and strenuously urges the necessity of withholding from the child whose spiritual birthright they acknowledge, all that can misengage the attention of the spirit in the human or inferior region of the soul, in order that it may, in its fullest or purest power, develope and organize the highest disposition, and, through the purest sentiments, complete its work of producing a more and more refined and perfect organization.

The phrenologist declares, that the creating Spirit distinguishes the good from the evil, the darkness from the light, producing all the delightful sensations it has adapted it to sensate.

The phrenologist terms the brain, the fiery region of the spirit, and from its facts or development, infers spiritual facts which only the creating Spirit can originate, continue, and sustain.

The phrenologist declares the child to be like a seed, in which are enfolded all the qualites, properties, and talents, the Spirit will unfold and manifest when the educator carefully and continuously removes all obstructing influences, and furnishes the suitable conditions for the same.

The phrenologist asserts, most distinctly, that to treat the child as an empty sack, and to strive only to fill it with technical facts, is a wrong to the divinity within it, and must inevitably be attended with the most fatal, degenerating, and disastrous consequences.

The admiration or delight which we experience when we contemplate fair and beautiful objects, the phrenologist hesitates not to declare, must be referred, not to the objects themselves, but to the spirit in us with which the spirit in them corresponds.

The phrenologist requires of all engaged in education, to recognize and address the spirit in the child—to acknowledge that the senses are OUTLETS for the spirit, whereby it exercises itself upon outward objects; and not INLETS, through which to take spiritual impressions or sensations.

The phrenologist most earnestly pleads for a liberal encouragement of all social arrangements that incite and occasion the spirit to take up its abode in the purest sentiments and noblest talents, so that it may exercise the highest region of the brain, and through it manifest itself outwardly.

He also calls loudly upon those who legislate for the public welfare of the people of this great nation, to remove, as far as possible, all temptations that shall necessitate or stimulate the spirit to disproportionally exercise the inferior regions of the brain.

The phrenologist shows clearly, that just as the EARTH makes its way through earthly organs into man, so will the HEAVENS make their way into man through heavenly organs. He clearly points out, that act follows organ, and organ the elements of which it is constituted.

EXTRAORDINARY EXPERIMENTS AND EXTRAORDINARY CURES.

In the Courier des Etats Unis, of a recent date, the editor, in an amusing article, purporting to give his last recollections of Paris, which he left on the first of last month, relates some experiments which he witnessed in the public slaughter houses of Paris (*abbatoirs*) of a very remarkable character.

The first experiment was in order to resolve the much mooted question, whether perception is extinguished by decapitation? Accordingly, several sheep and calves being brought out, the head of each was struck off at a single blow; a lighted candle was then held before the eyes, which—horrible to relate—contracted, and were agitated two minutes after the decapitation. It is horrible to think, as a possible thing, that a human being guillotined may think and feel two minutes after the head is separated from the body—minutes that would be ages of unspeakable agonies. It is, indeed, probable that the sensation which thus survives is purely animal, and that intelligence and consciousness are annihilated by the blow that separates the head; but it is horrible that there should be room even for a doubt on this point, and that it should seriously be a matter of question among some of the learned.

It seems, morever, that the possibility of such a thing was foreseen by Guillotin, the learned philanthropist, whom science and humanity have so unworthily rewarded, in giving his name to the instrument he invented. M. Bizet possesses a model designed by Guillotin himself, in which, above the fatal circle into which is thrust the neck of the victim, is a heavy hammer, which in its descent strikes the head at the same moment it is separated by the axe from the body, and thus stuns it into unconsciousness. The machine has been used in France without this accessory of provident humanity, because, perhaps, the revolutionary tribunal deemed it too complicated for their expeditious operations. Now this precaution ought to be adopted.

The second experiment I witnessed was to establish the marvellous effect of the Bocchieri water. This water, called after the Neapolitan chymist who invented it, and who retains the secret of its preparation, has caused a sort of revolution in medicine and surgery. Every one knows the comparative inability of surgery to arrest sudden hemorrhages, especially of the arteries—injuries which are so rapid in their consequences, that the patient is often dying before the usual remedies can be applied. Mr. Bocchieri has obviated this difficulty. In the experiment which I witnessed, two operators divided the carotid artery of two sheep. The one was immediately put into the hands of surgeons, to be treated according to the best methods known to science; the other was treated with the Bocchieri water. The animal treated *secundum artem*, or scientifically, died of the hemorrhage; the other, dressed with this marvellous water, was running about and eating twenty minutes afterwards! This caused the famous Lisfranc to exclaim, "Gentlemen, here is a result which may be summed up in two words—here is death, and there is life.

When the lint, which had been steeped in this water, was removed, the wound was found perfectly dry and free from any tinge of blood. The doctors, struck with this, caused the animal to be killed, and, on dissecting to the artery, it was found that there was no scar, but an actual reproduction of the vessel; thus seeming to prove that, by its action on the *fibrine* of the blood, it produced a new organization of the tissue.

M. Bizet has ascertained, that in the different slaughter-houses of Paris, in the course of one year, 1,145 cases of severe cuts sustained by the butcher boys had been cured by this water, in an average of twenty minutes each.

Other extraordinary cures have been effected by it, especially in checking spitting of blood, which is now under the control of the physicians; and external wounds may be cured by it almost with the watch in hand.

M. Galliardet adds, that the experiments he witnessed were made at the instigation of the Commander of the Cavalry in Paris, with a view to the introduction of this remedy into the military hospitals.

SURGICAL OPERATION UNDER MAGNETIC INFLUENCE.

ANIMAL MAGNETISM.—A few days since, a large tumor was taken from the shoulder of Mrs. Dunn, wife of the Principal of the Academy at Hempstead, L. I., without pain, she having been put in a mesmeric sleep. After the operation was finished, "Mr. Dunn, by a few reverse passes, restored her to consciousness. In reply to an observation that she had had quite a nap, she said she had, and that she felt better for it. The tumor having been mentioned, she was told that the physicians had examined it, and had concluded to do nothing more with it at present. She expressed considerable disappointment, and being asked if she would consent to be mesmerized next week, and have it taken out, she answered in the negative, and said that if it became necessary to have it removed, she would prefer to remain in a state of consciousness. Dr. French asked if she had experienced any pain or uncomfortable sensation during the sleep.—She said she had not, and the Dr. then asked what she would think if he should tell her that it had been removed. She turned her eyes towards her shoulder, and perceiving a small spot of blood lower down on her dress, with a countenance indicating much anxiety, she asked her husband if it was out. The tumor was shown to her, and she evinced considerable agitation." The parties to this transaction, says the Brooklyn Eagle, are all well known in Hempstead, and their standing and position are such as to preclude all idea of deception.

N. Y. Jour. of Commerce.

[FOR THE ST. LOUIS MAGNET.]

THE BEAUTIES OF NATURE.

Will you come with me to the foaming sea,
  While the wind her bosom is swelling,
And the mournful song is wafted along
  To the door of our peaceful dwelling.

Now the troubled sky bodes the rain-cloud nigh,
  And its black, dark shade is descending,—
And the lightning's flash, and thunder's crash,
  With awe each knee is bending.

But with glory three-fold, in crimson and gold,
  Is the arch of Hope suspended
Against the storm-cloud, that's but a thin shroud
  'Twixt us and where each ray is blended;

Where each tint and tone mingle into one,
  And the light of day is shining,
Both clear and bright, in perfect light,
  Peace, love, and hope, combining.

And now to the fields, where Nature yields
  Rich blessings to him who seeks them,
Where the new-mown hay, and flowers gay,
  With their sweet fragrance greet them.

And the garden wiles us with her smiles,—
The rose and mignionette,
And the blooming bean, and lavender green,
With sparkling dews are wet;

And the odorous scent, from each gay plant,
On the viewless air is stealing,
And is wafted along, by the zephyr's low song,
To our senses new pleasures revealing.

How sings the breeze, in the forest trees,
As they wave in ceaseless motion,
As it dashes along o'er the sturdy throng,
On its way to the restless ocean?

The bare mountain stones give out their tones
From each cave, and glen, and hollow,
And dizzy height, where the eagles' flight
Is beyond the eye to follow.

And Nature's harp sings, on innumerable strings,
The heart's best sympathies moving,
In tones of delight, in darkness and light,
Ever fair, ever new, and improving.

Her charming voice speaks, to him who seeks,
A language that's deep and unshaken,
Of beauty and truth, to the aged and youth,
And sweetest emotions awaken.

Thus the lovely earth is giving birth,
Each moment, to new scenes of enjoyment,
And every sense has its recompense
In the pleasure of every employment.

And the mind expands—as the numberless sands
That on ocean's shore are driven,
Are the thoughts that raise the spirit's gaze
From the pleasures of earth to Heaven.

St. Louis, Jan. 20, 1846. G. W. W.

THE

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PROSPECTUS

FOR THE SECOND VOLUME

OF THE

SAINT LOUIS MAGNET.

The first volume of the St. Louis Magnet is about drawing to a close, and the time has arrived for making arrangements for the continuation of the work. We most sanguinely expect that the friends of *truth* — of scientific research — of moral reform, and progressive improvement in those departments of knowledge which particularly scrutinize man, rendering anthropological science comprehensible, and beautifully practical to the general reader and the most superficial thinker, as well as presenting it sufficiently concise and deep-toned to satiate the more cultivated minds, will aid us in our undertaking.

The object is, to present the public with a cheap work, within the reach of all — the poor as well as the rich—the uneducated as well as the educated;—like the *magnetism* of nature, it may permeate all classes, and become the connecting link which will tend to unite the heterogeneous masses of society, constituting one grand, one perfect whole.

Electrical science is destined to revolutionize the world of error which is abroad in the land. We have an electrical theory of the universe — of agriculture—of mechanics; and an electrical theory of disease and health—the practice of medicine, must soon supplant the present conflicting and absurd theories in respect to one of the most important departments of science, connected with man and his happiness — *the science of healing the sick.*

Progressive improvement is the order of the day, and he who does not rouse every energy to keep pace with the times, must soon lag far in the distance, ranking with those who were, in contradistinction to those who are, or are to be.

It is the periodicals of the day which are in advance of the times. It is to them we have to look for the first glimmerings of great discoveries. They constitutite the connecting link between men of genius — the deep-thinking and original minds—and the general reader,—the teacher and the pupils.

Practice is maintained to be superior to theory; but it is impossible to practice that in any degree of perfection which we do not understand, and we cannot understand anything without theory. To cause people to perform, without knowing the why and wherefore of what they do perform, either mentally or physically, would be reducing them to a level with mere machines; it would be burying their reasoning powers — the noblest talent with which the mind is endowed. To cultivate this power to any degree of perfection, it is absolutely necessary to become acquainted, not only with this power, but with the causes upon which it depends for existence.

Reasoning is an effect of the action of the brain; the action of the brain is an effect produced by an etherial fluid manifested through the brain. This etherial fluid is a universal principle which fills all space —

"Spreads undivided,
And operates unspent"—

the peculiar modification of which depends upon the organization of the matter through which it is manifested; and the difference in the organization of matter depends upon the peculiar combination of the molecules of this etherial fluid; and the disposition in these molecules to combine in different proportions, producing the various modifications of organized matter, is inherent in their constitution, and as eternal and immutable as the molecules themselves.

A beautiful analogy exists in the numerals 1, 2, 3, 4, 5, 6, 7, 8, 9, 0, which may be combined *ad infinitum*, expressing every variety of number, from one to the highest point the mind can grasp, and as much beyond this limited degree as eternity is beyond the conception of mind fettered by organized matter; and these ten figures depend upon the simple unit, (1,) independent of which they could have no existence.

Hence, we perceive, to become theoretically and practically acquainted with the noblest power pertaining to man — that which should govern all others, we must first take into consideration the *motive power of the universe*—that etherial principle which pervades all matter, giving it first a tangible existence, which we recognize as matter; 2, form; 3, weight; 4, size; 5, motion; 6, sensation; 7, perception; 8, retention; and lastly, reasoning, the last, highest, and noblest principle, added by the Creative power of the universe to any being who has emanated from His hands — the crowning perfection of all His labor, created upon the principle of progressive improvement, and as much more subject to the immutable laws of nature as it is superior in perfection. Hence, the severity of mental anguish over physical pain.

In accordance with these views, to improve man's reasoning power, we should become familiarly acquainted, 1st, with the great principles of the organic law; 2d, the moral law; (for I hold no man can reason correctly on mental science without being moral;) and lastly, the intellectual law, which governs reason. Upon these laws are based, 1st, the science of Physiology; 2d, Phrenology, or Neurology, which properly embraces both; and lastly, Magnetism, which is the motive power of the whole — the crowning perfection of anthropological science.

Now, all we have to say in conclusion, to the inquiring public is, should they be desirous of investigating these highly interesting and instructive subjects in this beautiful order, the ST. LOUIS MAGNET offers as cheap and perfect a medium as any publication of the day. It has now been in existence nearly a year, depending entirely upon its merits for its support. Its circulation is growing rapidly, and it would be superfluous to add, that no pains shall be spared to make it what it should be in both theory and practice. *Its object is physical improvement, moral reform, and intellectual culture, not in any narrow contracted point of view, but* PANTOLOGICALLY.

The cause is a noble one, and it shall be the object of the work to as nobly do its duty. We ask none to lend it their support, nor even their countenance, who do not conscienciously believe they would be advancing the great object of nature — the cause of humanity, by exciting inquiry, encouraging investigation, and eliciting conclusions which must tend to beneficial results.

We rest the work on its merits, and, in accordance with this principle, we wish our friends to view it with unprejudiced minds, and act accordingly.

We think we have now demonstrated to the public that the St. Louis Magnet is no *humbug*. It came out under very unfavorable auspices, without any hireling support, or any undue effort on our part to increase its circulation. It has gone abroad to the public accompanied by no misguided zeal — no abusive slang heaped upon any school, party, or sect, or their opinions. In strict accordance with the spirit of CHRIST, it went not abroad to destroy — to tear down, but to build up. It went not abroad to save the wise, but the unwise, from their folly.

Terms.—The St. Louis Magnet will be issued in monthly numbers of twenty-four pages each, at $1 per single copy, or six copies for $5. Any person obtaining ten subscribers, and forwarding the money, will be entitled to the first and second volume, or two copies of either vol. No future number will be forwarded until the subscription price is advanced.

All those who design becoming subrcribers will forward their subscriptions by the first of April, so we may form some estimate as to what number it will be prudent to print.

Address T. J. McNair, 92 Chesnut street, St. Louis.

CORRESPONDENCE.

Weston, January 23d, 1846.

Mr. Editor: There is nothing more characteristic of the age in which we live than the discoveries in Physiology, Neurology, &c., and the great interest taken in them by the public at large. The St. Louis Magnet furnishes a cheap and convenient medium for the investigation of all these subjects, and by directing the public attention to them has excited a general interest to know more of their singular phenomena. In the January number I find several articles on electricity, magnetism, preservation of health, &c., and it occurred to me I would make to you a suggestion of another application of electricity or magnetism as a medicine and preventive of disease, which I am not aware has ever been tried. From our knowledge of this fluid, it exists in all bodies, but not in equal quantities at different times, at least its presence is not at all times equally made manifest. We may conclude, from reasoning in similar cases, that a certain proportion in each human body is necessary for the preservation of health—and that either more or less than this quantity would derange the circulation, the nervous system, or some portion, which would result in disease of more or less violence in proportion to the excess or deficit. Now, if you had a magnetico-electric bed, with a guage attached thereto, placed upon non-conductors, could you not measure the quantity in a healthy person; and then by making the same experiment when sick, could you not ascertain whether there was a redundancy or deficit, just as you determine whether there is too much blood or bile, or too little; and by repeating the experiment upon a number, could you not tell whether this fluid is the cause of disease or not? You might have the bed simply a non-conductor, and a jar similar to the Leyden, with corks attached, to move on a scale similar to a thermometer, which the subject could hold in his hand. The galvanic pile has the astonishing power of disuniting the elements of several combinations: it decomposes water, salts which are insoluble, &c.; and may not an excess in the human system be productive of this effect? This can only be determined by ascertaining the quantity in the same person in health and in sickness; and I would suggest to you the propriety of making the experiment. The only difficulty is to invent the apparatus; and, I think, something similar to the above would answer. I leave you to determine all the minutiæ of the apparatus necessary, which your knowledge of the subject will enable you to supply. In the course of the Spring, I expect to be at St. Louis, and would like if, in the meantime, you would turn your attention to this subject: when I come, perhaps I can be of some assistance. I would have you send me the Magnet, but I am about to make a change of residence, and cannot tell as yet how to have it directed: when I see you, I can also attend to this matter.

Yours, &c.,

JUVENIS.

The modest and philosophic spirit in which JUVENIS suggests so important an experiment, entitles him to our highest respect. Notwithstanding the youthful name which our correspondent assumes, the idea savors of a deep reflecting and a highly cultivated mind. It is a suggestion which will one day rouse from their lethargy the most powerful minds in the scientific and philanthropic world. To determine so nice a point as is involved in ascertaining the electrical condition of the animal body, would require great scientific skill and judgment in electrical science. An electrometer, showing the nicest shades of difference in the electrical or magnetic state of the body, would be required in order to make successful experiments. This may all be succeeded in, upon the principle which our correspondent has so ably suggested.

Electrical science is yet in its infancy, particularly in its application to disease. Much thought and many experiments will be requisite to make a fair and correct exposition of such critical points. The imponderable agents—light, heat, electricity, magnetism, &c., are too etherial for the gross thoughts of the grosser multitude to reach; hence, but little yet is known of them. But now there is a spirit of investigation roused throughout the length and breadth of the philosophical world—a stone cut out of the mountain of mind; not with hands, but by the facility of the interchange of ideas, produced by the freedom and cheapness of the press, which will roll on until the whole world is made alive through the instrumentality of science, to the vast importance of these powerful agents. To these agents we have got to look for the perfecting of agriculture, mechanics, and medicine. The study of these agents has, in the last few years, thrown more light upon the operations of nature generally, and abstractly, than all the metaphysical disquisitions that have ever preceded electrical science. It is to this science we have got to look for the solution of the difference between matter and spirit, physics and metaphysics; and in short, there can be no doubt but what it is destined to solve the most sublime problems pertaining to the laws of nature and to *Nature's God.*

We shall be pleased to unite our feeble efforts not only with our correspondent, but with all who may feel an interest in the development of truth, and consequently the improvement of man, physically and mentally.

We have no doubt of the fact, that there is a difference in the quantity of electricity in the healthy body and the diseased body, and that different parts of the body may be in different states of electricity; and this may not only account for general disease, but local disease also. If the body was too positively charged with this etherial and powerful fluid, it would undoubtedly prove detrimental to the healthy action of the vital organs, and the consequence would be disease in proportion to the excess of the fluid: this would most probably produce a highly inflammatory action in the system, which we call fever, and hence probably the true philosophy of fever. If, on the other hand, the body were too negatively charged, it would also prove detrimental to the healthy action of the system, and the consequence would be disease in proportion to the want of this *vital galvanism*, and this probably solves the cause of these low chronic diseases. Without designing to discuss this subject in the present article, we would state one fact as strongly corroborating these views. When the atmosphere is in a negative state of electricity, we feel languid, dull, and stupid, and generally complain of feeling unwell. The system is relaxed, much like that of an individual who is chronically diseased. But when the atmosphere is positively charged with electricity, the body feels strong and vigorous, and the mind buoyant and active, which, if not always, is very frequently, the result of fever.

Here is a new field for inquiry, in which the philosophic mind may rove—a field abounding in new and wonderful facts, not mussed over by rude and superficial hands of preceding ages.

The Chinese, however, seem to have recognized some such principle, which will be seen by a perusal of the following article, translated from the pen of Father Amiot, the result of his researches into the principles of mesmermism, while on a missionary tour in China.

MAGNETISM AMONG THE CHINESE.

Extract of a letter of the Count of Mallet, Marshal of the camp, to the Marquis of Puysegur.

PARIS, Oct. 8, 1787.

For a very long time, sir, before the appearance of doctor Mesmer, I believed in an aerial, celestial medicine, which the ancients knew and expressed under the name of *Rapha-el*, (or the medicine of God.) I believed in it, more particularly, when I observed the *Rapha-im* announced as the powers of the world; and what men are able to be as powerful as the primitive antediluvian people, if it is not those who pay every attention in procuring the advantages of health? It was already possessed by all beings before they abused the gifts of a strong nature, and the powerful resources which Deity had distributed throughout every thing for the preservation of his works.

After some knowledge of electricity I likewise believed this medicine applicable by fire; it is, without doubt, modified in a manner analagous to living nature, pretty nearly as we respire it with the air which serves it as a vehicle, without imagining how we communicate it, because, I feared the ordinary electrical machine, as operating with too much rapidity and power. Finally, Mesmer appeared, and I suspected that he had one of these *Rapha-im* which I sought. All that was said for and against only augmented my hopes, and the desire of seeing the Adamic medicine revived. I had seen a medicine of attitudes, or postures, in some Chinese memoirs, which had caused me some reflection. I, therefore, made a small collection of works on Mesmerism, and sent it to Pekin to father Amiot, a missionary of very great talents, whom I knew had the truly apostolic love for the progress of the sciences and the happiness of humanity, and I begged him to inform me if the *cong-fou* would not agree to all therein contained. His first letter, which, unfortunately, I have not with me, was very satisfactory, and he promised me a still further account in the following year. You will find accompanying this, an extract from the second; and, with your permission, I will trace from memory the particulars of the first, which will serve as an explanation to the kind of exordium in that which I afterwards received.

The Chinese picture Nature, which they call *Tay-ki*, under the form of an eye, nearly resembling that of Isis. This general agent, this *Tay-ki*, forms a whole, male and female, that is to say, it contains opposite principles which they name *yang* and *yn*, and it is by the action of this *yn-yang* that every thing is produced, that all is born to be destroyed, and is destroyed only to be reborn under new forms.

From Father Amiot, Missionary in China, to the Count of Mellet.

Sir: I had only time last year to say a few words on animal magnetism, announced in Europe for the first time by Mesmer, and I promised to speak of it sooner or later, provided that in the course of this year I acquired any new light on that which concerns this important subject. I have reflected, I have informed myself, and I have had an opportunity of instructing myself by reading with attention the pamphlets which you had the goodness to send me by M. de Bertin, for which I thank you with sentiments of the most perfect gratitude.

The fruit of my researches has been a thorough conviction of the existence of a universal agent which influences every thing, to which every thing is submitted, and which, from the first moment of its existence even to when it ought to cease to exist, acts constantly by laws the most simple possible; and has produced and will produce without cessation all the secondary causes which constitute the vast universe, as well as all the physical agents, which are necessary for the preservation and maintenance of order in it, so long as it will please the Creator to allow it to exist. This corporeal, but invisible agent, occupying all created space, is named by the Chinese *Tay-Ki*. We may give to it any name we choose. This name of *Tay-Ki* in the Chinese idea, signifies, *first material principle, grand comble, that in which, and of which every thing exists, &c.* It encloses in its nature the *yn* and the *yang*, which are the two *great movers* of it, and a *ly*, which is the first *author* (*moteur*) of it. This *yn* and *yang*, put into play by the *ly*, seek to join, or unite themselves; they mingle and combine alternately, in large, small, and equal quantities; and from this mixture they form an infinity of beings, who partake more or less of the nature of their *constituents*. I speak as clearly as I can, of a thing, which, in itself, is not wholly very clear; but there are intelligent persons who understand at half a word that which others would not comprehend after the most lengthy explantions; as you, sir, are among those of the first, I will continue in the same tone.

Each of these particular beings receives only the kind of being which is proper to each of them, because of the less or greater quantity of *yn* or of *yang*, of which they are constituted; and it is this less or greater quantity which renders them more or less dependent on the one or the other of the two universal agents, *yang* and *yn*, which, in communicating to them the virtue of acting on other analogous beings subordinate to them, impresses upon them an action which they communicate to all around them, to other similar beings even to indefinity. I have equivalently told you this in my first letter, but I have to repeat it here, that I may enter upon that which I wish to mention.

The agent has two poles, which, from this circumstance, Mesmer named *animal magnetism*, and it is only the one of these particular and subordinate beings submitted to the *two general agents yn* and *yang*. Its functions are limited in the animal kingdom, and we cannot draw from it any benefit for the cure of diseases which afflict the human race, without having previously a perfect knowledge of *yn* and *yang*. It is further necessary to know the subject on whom we wish to direct its sanative virtue; and, in my opinion, it is that in which lies all the difficulty, or, at least, the greatest difficulty; for example, if the subject is affected by an excess of *yang*, the physician adds to this superabundance by directing towards the patient the *yang* instead of the *yn*, he is certain that, instead of lessening or extirpating the evil, he increases and strengthens it, and may produce death instead of a cure. It is, I think, for this reason, that Mesmer assures us, that unless we are acquainted with his secret, we cannot employ animal magnetism with any success. This is also expressed in other terms by the Chinese, when they say, that without a perfect knowledge of the actual condition of the *yn* or the *yang* in a patient, we cannot flatter ourselves with being able to perform a cure. It is to acquire this knowledge, that, for more than four thousand years, all those who wish to make a public profession of the art of curing, consecrate their laborious studies; but whatever may have been their success at different times, it does not appear that, like Mesmer, they have ever been able to arrive at the point of doing without ordinary medecines. They serve themselves with these medicines as so many conductors of *yn* and *yang*, in convenient proportions of the one or the other as will remove the diaease, and restore to health. We find in their medicinal works, only one example of cure operated by means of *yn-yang*, without any other remedy whatever, without any other conductor than a simple tube, and without touching or even seeing the patient. The following is the fact as related to me by a physician who had read it in a work made under the *Soui*, or at the latest under the *Tang*, that is to say, within, at least, ten centuries.

"A mandarin of high rank, it is stated in this work, had a dearly beloved wife, whom he saw wasting away from day to day, and rapidly hastening towards a dissolution, without complaining, however, of any pain or sickness; he wished to submit her to the examination of a physician, but she opposed him, saying, that in entering his house she had taken a firm resolve never to allow herself to be seen by any other man, and that she did not want any, she would sooner die. The madarin begged, pressed, and solicited very much,—all was useless. He consulted the physicians, who told him that they could give him no advice unless they had, at least, some indications of the disease which affected the person for whom they were consulted.

"An old man of letters presented himself, and assured him that he would cure her without seeing her, without even entering into the apartment where she was, provided, however, that she would be willing to hold in one hand one of the ends of a long tube of bamboo, while he held the other end. The mandarin regarded this as a curious expedient; and without any faith in the promised cure, he proposed it, nevertheless, to his wife, rather as something which would amuse than as a remedy.

"The patient entered into it with a good feeling—the old man came with his tube, of which he held one end, while the lady held the other, and applied it to that part of her body where she suspected her disease to lie, removing it from one place to another until she experienced painful sensations. She obeyed the directions, and when she had carried the end of the tube towards the region of the liver, the pains manifested themselves, and made her cry out loudly. 'Do not remove it,' said the old man, 'you will infallibly be cured.' After having continued in this state of pain for the space of more than fifteen minutes, he withdrew, and promised to return the next day at the same hour; and so he continued each day, until a perfect cure was effected, which was produced on the sixth day.

"The mandarin, full of acknowledgments, recompensed him liberally, but exacted a promise that he would frankly state if his method were not a *sie-fa*, that is to say, a superstitious art, or as we term it, a witchcraft. 'My art,' answered the old man, 'is in the most common laws of nature, and it is for this very reason, that it is always efficacious. It consists only in the knowledge that I have of *yn*, and of *yang*, which are in my body, likewise in my skill in directing the one or the other, as may be proper, towards any one in whom the *yn* and the *yang* are not in equilibrium, in order to re-establish them, &c.'"

This history, true or invented, proves, 1st, that, *at least*, there have been ten centuries during which the Chinese have had the idea of an agent concentrated in each individual under the name of *yn-yang*, depending upon the universal agent diffused throughout space under the same name; 2dly, that every individual can, at his will, dispose of this peculiar agent, provided he has acquired the necessary knowledge so to do; 3dly, that he can, in directing it properly, make any quantity of it whatever pass to another individual, in order to unite it to the particular agent of this other individual, and, that he can, finally, make it serve him, as a very efficacious means for the cure of diseases.

If I am not deceived, it is this which Mesmer attributes to that which he calls *animal magnetism.* I say more, the *yn-yang*, this universal agent which produces and modifies all bodies, which submits every thing to them in general, and to each of them in particular, to the general laws to which it is itself submitted, is the only key which can open to us the sanctuary of nature. It is in it, only, and by it, that we are able to give a reason for all the phenomena which we meet with, at every step, in the obscure regions of physics, and by which we may be enabled to form a clear idea of the true theory of the world. Acknowledge, sir, that your presumptuous learned men, who regard the Chinese as such philosophers and physicians, may well be astonished, if they, necessarily, have to adopt the system of these same Chinese, as being, if not the truth, at least the most satisfactory, and approaching nearer to truth than any other; and as this system is very ancient with them, so that we cannot name its author, and as we likewise have it only by tradition since the first age of the monarchy, it is necessary to conclude from them, with M. Bailly, that they have received it from an anterior people, from a lost people; in a word, from the antediluvians, who were, probably, more advanced in the sciences than we of the present day possibly can be.

J. King, M. D.

DR. BUCHANAN'S LECTURE.

The third lecture being in reference to the utility of Neurology, presented some highly interesting practical features of the science, and bore heavily upon the absurdities and deficiencies of medical science. A crowded audience received these remarks with evident gratification, and the physicians who were present will doubtless find in Dr. B.'s criticisms, much food for profitable meditation.

The lecture (which we believe was about two hours long) was heard with unflagging interest from beginning to end — but, on account of its great length, we can give but a very partial outline of the topics.

Dr. B. began by regretting the necessity of speaking in detail of the *utility* of the science. Some things are, or ought to be, self-evident — that knowledge is the one thing needful to human progress — that the knowledge of man is the highest species of all knowledge, and that a true and complete SCIENCE OF MAN would be worth all other knowledge — did not seem to need any argument with those accustomed to reflection. Neurology claiming to be this science, was either false, and therefore worthless, or true, and therefore *invaluable.* It reduced all science of man to the test of experiment:—to rely upon speculation in mental philosophy, now, when mind itself was in our power, by experiment upon the brain, would be as visionary as to resort to the ancient speculations about the four elements, when we have experimental chemistry with galvanic analysis — or to speculate about the sidereal heavens, when we have the telescope within our reach.

The practical value of Neurology might be judged by the vast amount of labor which it superseded. The vast libraries filled with books, illustrating the science of man in its various aspects, were sufficient evidence of the value attached to such knowledge, and of the amount of wealth, time and talent consumed in attempting to form a science of man, while the signal failure or deficiency, was shown by the fact that there was no *science of man* in existence, and the only word which signified such a science — ANTHROPOLOGY — was scarcely ever brought into use, because there was nothing completed to which it could be applied. The science of man consists of four departments — 1. Psycology — the science of mind or soul, with reference to spiritual principles alone; 2. Phrenology — the science of the relations of the mind to the brain; 3. Cerebral Physiology, the science of the relations of the brain to the body, as the source of the various functions; 4. Corporeal Physiology — the science of the bodily functions in connection with the anatomical structure and physical agents. Of these four departments we have but three at present. The fourth has been highly cultivated — the third almost totally neglected, In the second department we have the foundation of a great science, laid by Dr. Gall; and in the first we have many valuable materials for a science, collected by philosophers and mesmerists. Neurology would perfect the first, second and fourth departments, and would erect the third as almost a new creation.

To illustrate the improvement upon Phrenology, he referred to the numerous organs upon his diagram, discovered by minute experiments upon the brain, which presented a complete portrait of human nature, and not a mere charcoal outline of the principal features. These experiments, by exploring the internal and basilar regions of the brain, obviated the old objections against Phrenology, and brought to light a "terra incognita," while all the defects of practical Phrenology were obviated by exploring character through the sympathetic diagnosis — persons of the impressible temperament being able to feel and describe, with the utmost accuracy, the action of another's brain when they feel its influence by contact with the organs.

The improvements upon Physiology and Therapeutics, were illustrated by a reference to the philosophy of the circulation, counter-irritation and the materia medica. Our knowledge of the circulation of the blood, based upon Harvey's discovery, was exceedingly defective — it was but a mechanical knowledge — a knowledge of the hydraulic apparatus, and not of the laws of its action. Health depended upon the proper balance and distribution of the circulating fluid. The great practical question was, what is the cause of the various determinations of the blood, and how can they be controlled?— knowing this, we would understand the philosophy of disease and the philosophy of its treatment — but while we merely looked at the circulation as a physical fact, without knowing its controlling powers — we could not have a philosophical knowledge of disease and its treatment. The laws of the circulation could be demonstrated by experiment upon the brain, producing any condition of the circulation desired, and producing innumerable modifications of the pulse.

This discovery of the moving power and philosophy of the circulation, was of more importance, philosophically and practically, than the mere discovery of its mechanism.

The sympathies of the mind with the brain, and through the brain with the body, were very important in medical practice, but these relations between the brain and body were left to accident and ignorance. All recognized this sympathetic connection, but no one attempted to specify its exact laws. It could not be made a matter of accident or confusion,— for the laws of nature are definite and exact;—there is no confusion in the human system. Neurology, for example, would prove, that the portion of brain in front of the ear was connected with the action of the heart, and that operating upon this organ, would affect the pulsation of the heart — it also shows that this organ is connected with the mental emotion of Fear. Fear, in the mind, affects this organ, and this organ affects the heart. The three are connected together — hence disease of the heart produces fear, and makes men cowardly,— an expression of anxiety and alarm in the countenance, is one of the diagnostic symptoms of inflammatory disease of the heart. The symptoms of pericarditis are widely different from those of hepatic diseases. Disease of the liver is associated with depression of spirits; and, so long has this been known, that this depression is indicated by the term *melancholy*, which etimologically indicates the existence of black bile. Why does language thus associate dejection and black bile together? Because this organ in the brain, (in the middle lobe,) which is the source of hepatic action — the excitement of which will excite the liver — is also in its mental influence, the organ of sadness, dejection or melancholy. But disease of the lungs has no such melancholy tendency; the lungs sympathise with the upper and frontal regions of the brain, in which lie the organs of virtue, of hope, of intellect and of refinement. Hence the frequent serenity of mind in consumptive patients upon the verge of the grave, and the spiritual beauty of character which we often see developed in them as life is passing away, and the spirit plumes its wings for immortality.

By a definite knowledge of these direct and reverse sympathies of all parts of the frame, counter-irritation might be made a matter of exactness and success. But physiologists as yet have no scientific knowledge of this subject, and they never can have except by investigation of the relations of the brain to the body. Their counter-irritation is perfectly empyrical. Where there is local disease, they blister upon the spot over it, or upon a place very near it, or upon the most remote part of the body, or upon an apposite location, or — somewhere else — in short, wherever fancy and undigested experience may dictate. Thus the sinapisms, vesications, cups, cataplasms, and moxas, ice, leeches and cautery, are freely and boldly applied, in a style which speedily satisfies the patient of the great powers and formidable resources of the *healing* art. This portion of the practice may well be illustrated by the anecdote given by a French writer, to illustrate his views of the practice of medicine. A traveller, at midnight, in a storm, is passing along the highway; he is nearly lost, and greatly alarmed, when of a sudden he is attacked by several robbers. In terrible affright, he screams for help, and his cries bring to his help a police officer, who rushes on bravely in the dark, with his drawn sword, and as soon as he reaches the scene of conflict, lays about him manfully in every direction, to quell the disturbance. He cuts and thrusts — kills a robber, wounds the traveller, and lays them all prostrate upon the road, perfectly incapable of resisting his onset. The traveller is the poor patient; the robbers the disease, and the officer the physician. Such is our practice of counter-irritation; a midnight battle — a striking in the dark — an attempt to regulate machinery without ascertaining its springs and cords. These can be ascertained only by the experimental method of exciting the functions in the brain and body.

Our materia medica is a confused and fluctuating set of opinions. Our knowledge of medicines is derived from the use of them in certain diseases by way of experiment. The result of their use was so mingled with the effects of the disease itself, of idiosyncrasy, of food, nursing, time, climate, clothing, &c., that nothing exact could be learned in this manner, and accordingly, every article had a reputation for many years, as uncertain and fluctuating as the mode of inquiry was empyrical. Instead of these confused investigations and fluctuating opinions, Neurology proposed to establish a rational system, by trying the effects of all articles upon persons of high suceptibility, in health, with whom the results would be accurately and perfectly developed in a few minutes, so as to give the pure and exact physiological results or effects of its use, with a fullness and accuracy not otherwise attainable. He had made many such experiments upon intelligent persons—physicians and others, who could feel and describe the influence of any medicines, food, or poison, without knowing at the time, what it was, with extreme accuracy. Thus he proposed an entire revision of the materia medica. There were many other important results, to which he could not allude this evening—but he could not omit to observe, that we could find in any community, ten, twenty, or even forty persons of that class of constitutions to which it is almost unnecessary ever to swallow medicine—manipulations, to excite the organs and change the action, would control disease in all impressible constitutions, and to such it was highly necessary to possess this knowledge which furnishes a key to health—while it was a solemn duty with physicians, especially in southern climates, where impressibility abounds, to understand the impressible constitution, and to impart that safe and harmless assistance which is so easily given to that temperament without resorting to heroic medical treatment.—*Botanico-Medical Reccorder.*

MORE CLERICAL DELINQUENCY.

The New Orleans Picayune has the following:—

EXPULSION OF A PREACHER—MESMERISM AND SEDUCTION.—The Methodist Episcopal Conference, now in session in this city, has expelled the Rev. H. H. Shropshire, who last year travelled the St. Helena district, from the ministry. He was charged with the flagrant offence of having attempted the seduction of a young lady upon whom he was practising some mesmeric experiment in July last. He fully confessed his guilt, and did not attempt to justify his conduct. The venerable bishop Soule, president of the Conference, strongly reprehended the practice of Mesmerism, and admonished his hearers to avoid it as one that was disgraceful, degrading and ruinous to those who meddle with it.

Will this "venerable bishop" carry out his logic, and apply it to some other cases that are of frequent occurrence? Will he "reprehend" the priesthood, where such cases as the following occur? Scarcely a day passes without showing such facts. We clip the following from the Democrat of this city:

"ELDER WHITMAN.—We mentioned, a day or two ago, that Elder Whitman, pastor of the Baptist church at Parma Corners, had been charged with criminal intercourse with the wife of one of his parishioners. We have since learned that he confessed guilty to the charge, and has been expelled from the church. The husband of the guilty woman has commenced a suit for damages."

We can see no reason for avoiding *Mesmerism*, because a lustful priest used it for the gratification of his perverted passions, any more than we should abandon writing because men counterfeit other's names, or figures because men make sometimes a bad use of *them*. The bishop shows about the same judgment in his profound recommendation as a certain "presiding elder" we once heard preach a long sermon against Phrenology, who wound up by saying, "*by the help of God, they never get their hands on my head!*"

Phrenology and Mesmerism are both *new* sciences, and such cases will be seized upon by those whose religion fears science to prove their "dangerous tendencies," while they forget that the world is full of Vanzandts, Onderdonks, and Whitmans, who would equally prove that the office of the priests and bishops should be "avoided."

GAMBLING AND ITS CONSEQUENCES.

Communicated by J. H. Green, the reformed gambler; with an account of his phrenological developments.

In February 1845, at the close of one of the editor's lectures on phrenology, in Clinton Hall, the subject of this article was brought forward and examined in public. We described him as being capacitated for making a good man, or the reverse, according to his associations and education; as possessed of great FORCE of character, yet comparatively regardless of consequences; as exceedingly determined, resolute and independent; as capable of being adroit and cunning; as calculated to make money very fast, yet illy calculated to keep it, because he had the *back* portion of acquisitiveness, which *gets* money, yet not the fore part, which keeps it; as altogether too generous ever to lay up money, and as exceedingly shrewd, knowing, apt, quick-sighted, practical, and off-hand, yet not profound. We also found constructivness, which gives *manual dexterity*, to be very great. Hope was found to be immense, marvellousness small, the social organs all amply developed, with veneration large, and the perceptives mostly large, and some very large.

His head, as compared with his history, is truly interesting. He has been one of the most expert gamblers of the age, and was universally known as such among his fraternity. And he has just the organs which, perverted, would enable him to gamble successfully; namely, prodigious individuality, eventuality, locality, comparison, hope, and combativeness, with large secretiveness, and small cautiousness, and not so much conscientiousness as to exert a controlling influence over his character. His constructiveness and exceedingly active temperament rendered him essential service, the former in playing those deceptive sleight-of-hand tricks so essential in gambling, and the latter, to render him quick in both his movements and his mental operations.

Being afterwards informed who he was, we solicited an article for our columns on the evils of gambling, that we might effectually expose this vice. With that request he has kindly complied, in having sent the following communication on this subject. To some of his remarks we shall append some notes, and wish to say two things; one, to our youthful readers, namely, *never, on any account, visit the card table, or billiard table, or faro bank, or participate in* ANY *game of chance where stakes are played for;* and the other is addressed to all, namely, *help on this good brother.* He is doing a great and much needed work, and has not been duly *sustained and encouraged.* Hold up his hands. Give him audiences and influence, and thus aid his cause.

He had accumulated, when he determined to quit his business, $27,000 in money, mortgages, &c., all of which he returned to those from whom he obtained them, besides much that he had before returned. He once gambled a man's house, furniture, goods—every thing—away from him, so that, from being well off in the world, he became pennyless. His wife was of course rendered most miserable by the change. Her distress wrought so powerfully upon Green's sympathies—a practical illustration of his great Benevolence—that he gave her back, the next morning, all that he had won the night before from her husband; meanwhile giving him a regular lecture on the evils of gambling, and telling him never again to be caught at any game of chance. His sincerity, no one, after this *practical* proof of it, will doubt, nor the importance of the cause in which he is engaged.

A SHORT ADDRESS TO ALL.—BY J. H. GREEN.

It has now been more than three years since I resolved to quit and expose the villainies of a profession which, for its demoralizing tendencies, heartless atrocity, and wide-spread mischief, has no equal. Perhaps it may be, by some, considered presumption in me to come forward and attempt to enlighten the public in relation to the workings of this most heinous vice of any age, and to offer my humble aid to the furtherance of the moral reforms of the day. It is taken into consideration that there are many in the field who are immeasurably my superiors both in literary acquirements and abilities as public speakers; and against whose early lives no immoral course of conduct can be referred to by those who are not disposed to act with them, for the purpose of lessening the influence they may exert. But as the testimony of him who has been personally engaged in a transaction is justly considered of more importance than that of a mere spectator, who perhaps could only now and then, as it were, obtain a glimpse of some portions that escaped concealment; I hope that what I may say, at least in relation to the most formidable vice of gambling, may not be entirely lost. Whatever may be thought of my movement, certain it is, that had I been controlled by considerations of pecuniary gain, preferring a life of warring for a dishonest possession of other people's money, a warfare in which friends and foes are indiscriminately sought to be plundered, deprived alike of the respect of honest men and rogues—for however much a similarity of calling may bind rogues together, they can never really love and respect each other,—had I preferred all this, and the continual sacrifice of every consideration by which men's happiness in this world may be augmented, I should have remained a gambler. Some may say, if a man gets money that is all he wants or need care for. To this I would reply that, aside from religious considerations, to which many will not hearken, money dishonestly obtained may serve to gratify or forward to some extent wicked and misdirected ambition, but not to augment the happiness of one who has a particle of one moral feeling remaining. It is a source of great satisfaction to me to know that my humble efforts have not been destitute of good, both in restraining some and reforming others. Many who were on the verge of ruin have become aware of their danger, and retraced their steps. Others who were the gambler's dupes, who spent or were robbed of all they could earn, borrow, or get as they might, in the resort of these vultures, have manfully come out from among them, and publicly denounced this calling, so destructive to their business, health, morals, and domestic happiness.

I would here more particularly address myself to the young, for on them all the affairs of this world and their management successively devolve. Are you a young man to-day? Ten years hence you may be in the councils of the nation, preparing and originating laws to perpetuate that form of government which you prize and deem best calculated to promote the greatest good of the greatest number. Or you may be in the educational assemblies, considering the best means of promoting the intellectual and moral culture of your juniors. This being the case, are you not in duty bound to second the efforts of those, who, while you are young, are making every exertion to better the condition of things? Should you not link together as one man to free the country and the world of the great hindrances, or at least most powerful enemies, of any permanent or wide-spread moral advancement? The monster vices of the day are intemperance and gambling! Surely when you shall become participators in the management of the affairs of your country, as you must, your tasks will be lightened in proportion as general evils shall be expelled. I need not now tell you that the twin vices of gambling and drinking are the two great mammoth evils of the day—the great fruitful fountains from which nearly all minor evils flow. They are the two great enemies of man's moral advancement, and continually at war with him in his pursuit of happiness, and often silently but effectually spreading misery, death, and desolation in their wide, unbounded track.

Some, from having taken only a superficial glance, suppose that drinking is a greater evil than gambling. This is a mistake. My experience warrants me in saying that where one family has all its earthly prospects totally wrecked by drinking alone, ten have been ruined by gambling. Drinking is more openly practised, and comes more immediately under public observation. It is practised and countenanced by thousands upon thousands who condemn gambling in toto. What is the inference? That they hold gambling to be the greater evil. In all civilized communities there are more or less laws against gambling, and in some places it is held as a misdemeanor, or punishable with imprisonment in the Penitentiary.

But I have yet to learn, that drinking to any extent, or vending liquors, is so regarded. These remarks are made to forcibly remind you that though you can see less of gambling, though its workings are not so often and so tangibly brought before the public, yet it is in truth a far greater and more dangerous evil than drinking, as our moralists and lawmakers testify when they permit, and to some extent encourage, the one and condemn the other.

Such is the infatuation of this vice, that often he who is at one moment possessed of all that earth can give to ensure happiness, wealth in abundance, and friends who respect and love him, will in a few hours be reduced to the miserable condition of a beggar, an outcast from his once happy home, and a reproach to his friends. Amid ruined prospects, and disappointed ambition, he is ever haunted by remorse for past follies and fearful forebodings of the future, or hopeless of any amelioration of his condition, conscious that he has brought lasting degradation upon himself and family, and perhaps of a temperament that disdains to survive the disgrace, he ends his own life, and is laid in a suicide's grave.

This is not merely fancy's sketch. It is a truth that is indeed poorly portrayed, and falls far short of the reality. Every gambler knows this, for he is constantly becoming acquainted with such sad and mournful events which have their origin in his villainous and diabolical machinaations. Avoid every overture of the gambler as you would the plague. Shun him as you would "a roaring lion going about seeking whom he may devour." I will here use somewhat the language of another, who, though he lacks personal experience, is gifted and eloquent, and portrays with great truthfulness the evils of this horrid vice. This picture is not exaggerated: language fails to paint this vice as horrible as it is;

"The young man who, from spending an hour at the gaming table, advances to spend the night, and then to encroach upon the hours due his employer, will very possibly be led to encroach upon that employer's property—in short, from being UNJUST, may become DISHONEST. This is no wide or unusual leap. What! will he who can wrench the very crust from his starving family, and pawn the bed from under them, and rush out despite their prayers and tears to throw the paltry stake that the articles have procured upon the gambling board—will such a man spare the property of another, think you, when opportunity aids? He who can thus deaden the sentiments of affection and duty, will suffer the unholy flame that burns within him to scorch up every feeling of honor and probity. All, all will be sacrificed to this intense, absorbing excitement. The vice of dishonesty, then, will very naturally accompany that of gaming. Then there is intemperance. How many have been led to drink deep and fiercely in the thirst of intense passion kindled in this pursuit! The gamester and the drunkard—how often joined in one individual! Disappointment, rage, despair—all seek to drown their fires in the intoxicating draught that reinforces and doubly heats them. Temptingly, too, to the young man—to the novice, reluctant, fearful, abashed—temptingly is the wine-cup proffered to his lips that, in a season of false hardihood and self-forgetfulness, he may hazard the fatal die. In all the degrees and mutations of gaming, from the fearfulness of the first trial, through the eagerness and excitement of hope, the flush of triumph, and the phrenzy of despair, intemperance is a vice that naturally, very naturally, accompanies it. There is usually an extreme show of order and decency about a gambling house. There are beaming lamps and ruddy wine "moving itself aright" in the crystal cups, and gay ornaments and appendages, to make the rooms showy and attractive. There cunning

Fraud sits demure in all save that keen, rapacious glance that, fastened upon its victim, evinces that it will have his last coin though with it comes his last heart-drop too. There congregate all kinds of men, from the keen, tried sharper, with marked cards and loaded dice, to the inexperienced, beardless youth. There bloated dissipation clutches the die with trembling hand, or sweeps the forfeited stakes. There hoary profanity fiercely clinches an oath with hands that have reeked with blood—in an HONORABLE way, for those who sit there are, forsooth, GENTLEMEN. They have a nice, a VERY nice, sense of HONOR, yea, would pink you with pistol ball or sword-point if you should doubt it, and write their HONOR in your blood.

"Young men have been ruined, often ruined, by the vice of gaming! And when you look upon them, the greatest woe, after all, was not that health was gone, was not that property was wrecked, but that the affectionate heart was changed, changed to cold, stony ice—the tender sense of honor lost—the pure aspiration stifled by low, grovelling, unholy appetite. Oh, this we felt was the deepest evil of all![*] How has the mother looked on such a son, her only son; who went forth with a good strong heart to battle with life's destinies for life's great ends! She hoped to see him one day with sparkling eye and his flushed cheek come home laden with the proofs of his toil and his victory. And he DID come home. Oh, how changed! His frame worn—his cheek pale, very pale—his eye wild and fevered—his lips parched and steeped in inebriety—his hopes crushed—his very life only the motion of excitement and passion—his very soul shattered so that if the music of affection still lingered there, it quivered uncertain and discordant upon its strings."

Now young man, as one of experience, let me warn you of the danger of the first step toward either of these giant vices, not only in view of your own immediate safety and welfare, but in view of the great responsibilities that will devolve on you in after life as the guardians of the morals and institutions of your country. There is no time to waste. Every day is bringing you nearer and nearer to this responsibility, and every moment's delay is leaving many to fall victims to these vile destroying vices.

I cannot close this short appeal without a word or two to parents and guardians—those who watch over and instruct our youths. Know, then, that with you a great responsibility rests. From experience and observation I know that the guardian is often too lax in his authority over his ward—too neglectful of his morals, too apt to think his duty done if he sets him no VERY bad example. Masters who have apprentices seldom care aught about them except during their usual hours of labor. At other times they are left to follow their own inclinations without even so much as a gentle hint from those who are most certainly responsible for their moral training. Think you, when you have stepped between the child and its parents, and taken the place of the latter, that the responsibilities of the latter fall not upon you? Can a reasonable excuse be framed why a youth, whose most impressible time of life is yours, should be left to pursue his pleasures and inclinations, unguided and undirected save by the idle, wild, and dissolute company which is continually hunting up recruits, and into which he is more than likely to fall for want of a knowledge of its true character and tendency, and proper incentives to seek company of a different character? Perhaps some of you may find difficulty in believing that the evil or the amount of evil flowing from these things is as great as I would represent it to be. Would to Heaven that I could find language that would represent it to you in all its deformity! You perhaps have never spent years among a set of men who make it a great part of their business to go about hunting up just such cases, knowing them to be the young men most easily seduced into their villainous snares. Young men have been allowed to contract a love for unholy excitement, the excitement of the bar-room, the ten-pin alley, the race-ground; yea more, an excitement that often eventually leads them to stake their all upon the cast of a base, deceptive die, which is sure to turn against them, beggaring the loser, but not substantially enriching the winner, inasmuch as he only seeks it to riot and revel upon. I will not say that you can prevent all this, but I will leave it to your calm, dispassionate consideration, how far you can prevent it. How much good you can do to save young men, not only by teaching them to love to do good, but by showing them in the most vivid colors the great importance to them and the community, of their leading virtuous lives, teaching them likewise to abhor evil in whatever form it may show itself, with all their might.

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[*] No man can gamble without utterly dethroning all moral feeling, and enthroning the propensities; besides perverting his whole nature. Nor can this be done without blunting all the purer, finer, better, moral feelings and aspirations of our nature. This moral deterioration—not the loss of the property sustained—is THE GREAT evil of gambling in all its hydra forms.

All the fortification youth can possibly have is necessary to enable them successfuly to resist the invitations and allurements of vice and vicious company, which is never satisfied with its present circle of votaries, but is ever appealing to the pride and passions of man, especially the young and inexperienced, to swell its already far too numerous ranks.

MEDICAL.

Clairvoyant Examination of Mr. John O. McCaslin.—"This gentleman has rheumatism in the tissues of the arteries; spinal column sympathetically affected, which may be easily removed; cappillary vessels very inactive; the organs which take up and deposite the fleshy matter is very much deranged, which causes a wasting away of the flesh; liver torpid, and stomach quite weak; the nervous system is very much impaired; the nerves are irritable, and withal very weak; the patient has little or no use of himself in any respect, but more particularly of his legs and hands; the fingers are considerably drawn, and also the toes. This want of control over the muscles and limbs — the relaxed and feeble condition of the whole system — is caused by the deranged condition of the nervous fluid, which is improperly and insufficiently secreted."

"*Cause* — Cold and exposure."

Remedies.—1. "Take one-half drachm mandrake, (*podopholum peltatum*,) one do. black root, one-half do. hydriodate of potash, ten grains extract of stramonum, twenty do. extract of cholchicum, one-half drachm gum myrrh, one-half drachm saltpetre. Make into five grain pills, and take three every other evening."

2. "One-fourth pound sarsaparilla, (*Aralia Nudicaulis*,) one-fourth do. burdock seed, (*Arctium lappa*,) one-half do. prickly ash bark, (*Xanthoxylum*,) one-fourth do. Virginia snake-root, (*aristolochia serpentaria*,) one and a-half ounce guaicum shavings, (*guaicum officinale*,) one-half do. black root, two drachms capsicum, one-half ounce mandrake root, (*podopholum peltatum*,) add water, and boil down to three pints; then add one-fourth pint best brandy and sugar, to make a syrup. Take half a wine-glassful three times per day."

3. "The patient should be steamed over the medicated bath every third evening for two weeks.

4. "His system should be bathed, or spunged over every other morning with cold alkaline water, and for the intermediate mornings cold saline water may be used. His body must be rubbed thoroughly dry, and immediately covered up warm. The medicated bath will serve to open the pores, and throw off the refuse matter which has lodged in the system. The alkaline water will serve to remove the gummy matter which may remain on the surface. The saline water will stimulate the capillary system, giving it sufficient tone and energy to perform its functions properly.

5. "Take one-half ounce camphor, one-half do. tincture capsicum, one

do. oil organum, one-half do. oil red cedar, one-fourth do. hemlock, one-fourth do. sassafras, one-half do. sulphuric acid, one-half pint alcohol. Compound these ingredients and form a liniment, Bathe the legs, arms, and spinal column with this liniment every evening. The magnetic machine should be applied every day till cured. The positive pole should be applied to the feet, and the negative pole to the back of the neck. The action of the machine should also be passed through his knee joints and ancle joints, and along the spinal column, and through from the region of the liver to the lumbar vertebræ. This last operation should be performed quite lightly. The whole of the operation should not occupy more than from twenty to thirty minutes. This course, rigidly pursued, will remove the disease, and the patient will recover."

This patient was brought to us from Bond county, Ill., some fifty or sixty miles from St. Louis. When he was first placed under our care, he was unable to help himself in any respect. He could not lift a foot, nor even work his toes. His hands were drawn so closely shut that they had to be forced open to admit the poles of the magneto-electrical machine. In this condition he came to us last October. He is now at home, quite well, and able to ride about and attend to his business. This patient had been in this perilous condition nearly a year before he placed himself under our care. He was first attacked with fever, and taken through a course of strong medicine by an alopathic physician, under whose treatment he became senseless and speechless, and lay in this condition for some time, his life being entirely despaired of. When he came to, he found himself in this helpless condition which has been described.

FOR THE ST. LOUIS MAGNET.

LOVE'S PHILOSOPHY.

The fountains mingle with the river,
And the rivers with the Ocean;
The winds of heaven mix, forever,
With a sweet emotion;
Nothing in the world is single;
All things, by a law divine,
In one another's being mingle—
Why not I with thine?

See the mountains kiss high heaven,
And the waves clasp one another;
No sister flower would be forgiven
If it disdained its brother;
And the sunlight clasps the earth,
And the mountains kiss the sea;—
What are all these kissings worth,
If thou kiss not me?

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PROGRESS OF SCIENCE.

Electricity, Galvanism, and Magnetism, are fast becoming the ultimate of motive power. Horse power, water power, and even steam power, are becoming too gross, too slow and sluggish, for the doubly refined, and lightning-propelled minds of the nineteenth century. Telegraphic speed is now the order of the day. The good old days of plodding along at a snail's gallop, when every thing was to be met, and nothing to be overtaken, have gradually given place to innovations, until the simple expedients of the olden times have been gradually dropped, and now, instead of the stone in one end of the bag, and the meal in the other, the Yankee notion of meal in both ends, and frequently in the middle too, has dethroned the stone, and even expunged its name from the pages of history, in the balancing operations of going to mill—a great saving of time and unnecessary weight. Water power succeeded the necessity of horse power; but think ye that it was not combated and denounced as a *humbug*, by those who believed horse power to be the *ultimate* of perfection? but water power triumphed, and took the first seat in the synagogue, and for many a long day it sat as supreme judge over all other innovations which sought to snach the imperial crown from his head. But after a mighty struggle, in which many well contested battles were fought, steam came in for a full share of the *motive* power, and the kingdom was equally divided between these formidable rivals. But, unfortunately, neither water power nor steam power, like the generations of their respective ages, have learned any charity for succeeding innovations, which may possibly supplant them both; as do succeeding generations supplant those of preceding ages.

Electricity and its modifications, as motive powers, though in an *adolescent* state, are already viewed with a jealous and suspicious eye, and every inch of ground is disputed and contested with all the monopolizing power of two great monarchs. But Electricity, Magnetism, &c.,

are more *etherial* in their characters — more *sentient* in their operations, and consequently more consonant with the present improved, refined, and lightning travelling minds of the present age.

Horse power, water power, steam power, as well as all the more gross and rude materials of nature, are gradually giving way before the refining power of the arts and sciences. Agriculture, in its rude and unimproved simplicity, was nothing more than the digging up of the ground with sharpened sticks. The seeds were rudely and unscientifically sown, awkwardly cultivated, indifferently preserved, and vulgarly devoured. But Time moved on with his refining wheels; the constitution of our globe has gradually improved, and kept pace with the wheels of time in their revolutions. The vegctable kingdom has steadily kept pace with the constitution of the globe. The animals partake of the nature of the food upon which they live, and consequently have kept pace with the vegetable kingdom; and man, the crowning perfection of nature's works, combining within himself the elements of the whole, omniverous in his character, possessing the nature of all, in both extremes—their uses and abuses, in every variety of combination—harmonizing, not only with the vegtablee and lower animal kingdoms, in their present improved condition, but also with the present improved condition of the constitution of the globe itself.

Hence, we perceive the *rationale* of the improvements of the day, which are connected with the past, and linked to the future. Man, in his language, has gone through thousands of modifications — innovation after innovation has come and gone, in words and their significations; in sentences, and their grammatical constructions; in ideas, their truth and falsity. Languages have risen and fallen. Theory has supplanted theory. The philosophy of to-day is passing off the stage of action, preparatory for the philosophy of to-morrow; like the waves of the ocean, they are rolled up by the breezes of heaven, only to be swallowed by the mighty abyss of time.

In dress, man has not been less capricious; the dress of each preceding age has appeared absurd and monstrous to the next. The same is true of all mechanical operations, one improvement succeeds another in such quick succession, that the inventors have scarcely time to reconcile the wonderfulness of the invention with the incredulity of the age, until it is eclipsed by some invention more wonderful still; and thus the excitement is kept up, and the mind is carried along, at telegraphic speed, through the rude and uncouth operations of the primitive ages, in a regular series, and connected chain of improvements, down to the highly refined and polished operations of the present day.

Take up the pages of history, and through them as a telescope, exercise the mental eye. View man in his primeval simplicity, before art and its imps, (*or the evil one*) insinuated its winding (*or serpentine*) devices into his peaceful and contented abode, (*or the Garden of Eden.*) In those days of simplicity, man's physical constitution was unimpaired by disease. No taint of the forbidden fruit, (*the abuse of the passions,*) had ever manifested itself through the physical and mental operations of Adam and Eve, (*or the first man and woman,*) and their posterity. Man was then a beautiful machine, erect in his form, noble in his countenance, and hale in his constitution. No physical ailments preyed upon his vital organs —man was physically great. His mental power partook of the same character—quick in his perceptions—retentive in his memory, and correct in his reasoning—the triune powers—the three great divisions which constitute *the* man. 1st, the physical system; 2d, the vital principle; and 3d, the mental power, were each healthy—perfectly organized and adjusted to each other. No morbid or diseased desires manifested themselves, through either thought, word or action. Then did man enjoy the fruits of the earth in disinterested happiness.

The physical law was obeyed, and man lived and died free from bruised bodies and broken bones;—pains, aches, and soreness were strangers in the land.

Man walked forth as strong as the lion and as elastic as the nymphs of the morning.

The organic law was then obeyed, and man lived, until the vital machinery was naturally worn out by the friction of its own continual motion,—when he as gradually and as imperceptibly sank down into the grave, as he had gradually grown into manhood. No affections of the heart to produce timidity; no diseases of the liver, to render man melancholic; no disease of the kindeys, to disable and enfeeble; no disease of the stomach, to sicken; no disease of the lungs, to flatter and increase the hopes for life, while death was severing the last chord upon which life was suspended; no inflammation of the brain, to disenthrone reason, while it carried its victim down to a maniac's grave. In this healthy condition did man go forth to till the ground, and gather the innocent fruits of his labor.

The moral law was obeyed, and man cultivated a due degree of respect for his fellow man. His benevolence was exercised, and he divided with and assisted those whose condition required his assistance to make their condition equal with his own. Hope was exercised, and to-morrow always came provided with a sufficiency to satiate our natural wants. Conscientiousnes was exercised, and justice was dealt out to all. In short, to love mercy, deal justly and walk humbly with the truth, was the order of the day. No loud and hypocritical professions were made in high places; no pharisaical prayers were made at the corners of public streets; no wolves prowling about in sheep's clothing, to rob the flocks of their fleeces; no fleeces, (*money*) then required to carry on the works, of *the* LORD, (Priests); no DEVIL to scare the people to be good; no *fire and brimstone* to punish them for being bad;—but one eternal round of just harmonious nature was universal and complete, man came forth from the dust of the earth, "in the Lord's own appointed way," and to the dust did his body return, and "the spirit to the God who gave it."

The intellectual law was obeyed, and man exercised his perceptive faculties, and observed all the operations of nature, and discovered that he could not create or anihilate anything; that he could only decompose and recompose—modify. His retentive faculties were exercised, and his observations were stored up, and remembered. His reflective powers were exercised, and memory was drawn on for facts, which were analyzed and synthatised, compaired and justly disposed of. His constructive faculties were exercised, dierected by reason, and all the conveniences of the age were spoken into existence. Under the guidance of reason, prompted by Acquisitiveness, Ideality, Approbativeness, &c., were the arts and sciences cultivated and improved, until man walked abroad the very image of greatness; like the sun in the meridian, he shone forth with unalloyed refulgence, surrounded by all the blessings of a beneficent world. He had nothing more to do, then to continue in the obedience of these *great* laws of nature, and pure unalloyed happiness would have remained his eternal and immutable companion from the cradle to the grave.

But, alas, the serpentine insinuations and desires of the passions of the mind, Amitiveness, Alimentiveness, Combativeness, Destructiveness, &c., tempted man, and overcame his moral and intellectual faculties, and he partook of the forbidden fruits,* and did eat even to gluttony, which destroyed the equilibrium of the three great powers which constitute man; the seeds of disease were sown henceforth in the vital organism—man no longer walked erect in the image of his Creator—he found himself groping about in the dark alone, blind and halt. The organic law violated and the penalty was attached—man was brought low *upon the sick couch*—a violent fever parched his skin, and pain racked his body. Hence, the son of man, (*the doctor*) was sent by his heavenly father (*the goodness of his own nature*), with glad tidings of great joy, (*health and long life*,) to all who should believe, return and be obedient to the simple law of our nature. But man has not believed—he would sooner continue in the gall of bitterness, and follow some far-fetched and empyrical views, indicated by a morbid condition of the selfish passions, than to return to the simplicity of his nature; obey the organic law and reap its rewards—health and happiness. The son of man, (*the doctor*,) whose province it was to redeem man from his fallen and diseased condition, from *sympathising* too strongly with his patients, became equally contaminated and liable to disease, and not only failed to redeem and save the world from dise se and premature death, but was actually taken captive by disease, tried—condemned—and crucified between two malefactors, empyricism and quackery, (*or ignorance and design.*) Since which time the human family have been left unguarded and unprotected, against the wiles of disease, which has gone on committing its ravages upon the constitution of man until there is no soundness in him. Sickness, pain and premature death cover the earth as the waters do the mighty deep.—Henceforth Doctor after Doctor appears direct from heaven, (*or the starting point*,) with the balm of Gilead, (*or the heaven-born medicine*) the very touch of which converts disease into health; and such are its sanative powers that the whole human family are abroad, jocund and gay, with imaginary health and happiness; all singing praises to the heavenly deliverer, who has thus timely mediated between them and death, and opened up the way for their safe delivery and return to health and happiness. And it is not until they have puffed the doctor into a princely fortune, and given him full assurance of their whole-souled gratitude, by swallowing his millions of *nostrums*, that they, to their great astonishment, find themselves still blind, sick, pained, and sore; and as a demonstrative proof of the wonderful efficacy of the doctor's nostrums, the far greater proportion of them are in due time gathered to their fathers, the promised *heaven* of the faithful, where all diseases are blotted out with one dash of the pen, which records the facts by blanks!

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* What is meant here by forbidden fruits, is the abuse of every thing which may be used. It was only the abuse which was forbidden, not the use.

But the time has not passed yet for the arising of heaven-born missionaries, neither in medicine nor religion. They have both ascended and descended; or, in other words, they have come from above and below, according to the peculiar notions of the respective ages in which they appeared. They are now coming, and they will continue to come, as long as doubt and uncertainty are convertible into articles of traffic, and greedily exchanged for truth, [*or one hundred cents to the dollar.*]

Each age must give birth to its great discoveries, and each discovery must have its discoverer. Nature does not work without tools, any more than doctors do without *nostrums*, divines without *creeds*, or lawyers without *tautological formula*. Nature is *now* about to exercise this noble function—her creative power. A great and magnanimous discovery is about to burst upon this age—one which will turn the doctors *topsy-turvy*, and convert their empyrical and butchering operations into a mild, efficient and harmless practice—a system in which opinion and presumption will be exchanged for knowledge, and doubts for certainties.

Every effect will have its cause, and every cause will have its antidote. The old astrological notions of the ruder ages, will give place to the simple philosophy of the nineteenth century. The world is rife for it. Inquiry, examination, and discussion, have awakened a latent interest, which is spreading wider and deeper, until the whole civilized world has become aroused to its importance and necessity, and are now, at this moment, anxiously awaiting the appearance of the second coming of the *King of Heaven*, who is to banish the monster, Death, with all his torturing imps, from the face of the earth, and leave man as *we* found him before his passions triumphed over his reason—healthy, happy, and wise.

This great *personage* has been promised ten thousand times, and as often has the world presumed it beheld him; and as often has it been disappointed. Perfection does not belong to any age nor its philosophy. Progressive improvement is the order of nature. There probably never was an age in which great practical discoveries followed each other in such quick succession. The imponderable agents have been snatched from their hiding places, and have burst upon the astonished world, productive of the most *etherial* and glorious effects. Yet every new discovery in its turn has been pronounced a *humbug*, when in reality the generation thus sitting in judgment is the *humbug*—it is they who are found to be in the wrong and not the principle discovered. Even Christ and his doctrines were pronounced a *humbug* by the Jews, and *crucified* for his innovations !!!

But notwithstanding all this, the world steadily advances, and those principles which are considered the *humbugs* and innovations of this age, become the *settled* principles of the next. Time rolls on, and prejudice after prejudice gives way, and innovation succeeds innovation, until the people have become reconciled to the fact that innovations constitute a part of the immutable operations of nature. And now, instead of repulsing every new discovery and denouncing it as a *humbug*, they are anxiously and impatiently awaiting the appearance of this remarkable *personage* which has been so frequently promised,—

AND HERE HE IS—

The Electrical theory of health and disease—the duodynamic practice of medicine—the science of healing the sick, not by posionous drugs thrown into the stomach, which irritate and corrode the delicate membranes of the vital organs, producing congestion and death;—but by vibratory motion, produced by the negative and positive *forces* passed through the part affected—healthy actions are produced, disease removed, and health speedily restored. No draining of the vital fluid — no nostrums to be swallowed — no death strugles to be witnessed between disease and the doctors!! "The vale is rent in twain, from bottom to top." The darkness of obscurity is exposed to view. The light is reduced to its simplest element, and presented without alloy. From the days of Hyppocrates, medicine has been practised by the wise of the earth. It has been taught in schools for more than two thousand years, yet it has changed more than a hundred times since the days of Galen. Every age has its innumerable schools, and every school has its two or three infallible remedies, upon which it depends for the removal of every disease; finally, modification succeeds modification, as fast as one generation of physicians succeeds another. Each school, and each generation; and indeed each practitioner denouncing the practice of the other, proving conclusively, that there is neither science, order, beauty, certainty, nor advantage to be derived from such a heterogeneous mass of corrupted nonsense.

But it is not good policy to pull down without building up. When Christ came on earth, he said, "I came not to destroy the law, but to fulfil it." Such should be the policy of every philanthropist, to build up that which he believes to be true, leaving error to fall with its own ponderous weight. Upon this principle we design to act, however our motives may be questioned. Lest we monopolize too much of this number, we reserve our theory, to commence with the next number.

MEDICAL.

CLAIRVOYANT EXAMINATION OF MRS.—BY CHARLES EAKER.

Disease:—"This patient is inclined to inflammatory actions —The blood determines too much to the lungs, and very frequently to the head — the lower extremities become very cold. There is too much serum in the blood— it is of a watery consistency. The patient labors under great difficulty of breathing; especially when under the influence of the least cold. There is severe pain in the left side, and also in the left shoulder under the Clavical bone. Great irregularity in the menstrual secretions — The Euterine organs are quite morbid, and require correcting. The lungs are sympathetically affected.—The air cells in the left lobe are considerably contracted. The liver is not sufficiently active, and the digestive organs are consequently feeble and do not perform their functions properly."

Remedies.— One oz. Dandelion (*Leon tadon Taraxacum,*) ½ do. Blood root, (*Sanguinaria Canadensis*) add one quart of water and boil down to three pints, drink half a gill three times per day."

2d. "Two oz. of Sarsaparilla, (*Aralia Nudicaulis*] two do. Pleurisy root, *Asclepias Tuberosa*, Skunk Cabbage, *Ictodes Fœtida*, one do., Blood root, *Sanguinaria Canadensis* two and a half do., Wild Cherry bark, *Prunus Virginiana*, two do., Liverwort, *Hepatica Amricana*, three do., Hoarhound, *Marrubium Vulgare*, two and a half drachms Copsicum; add water and boil till all the strength is obtained, reduce to three pints, and add loaf sugar, and best spirits to make a syrup. Take table spoonful three times per day."

3d. "Three drachms of Sulphate of Iron, *Ferri Sulphas*, five do. Carbonate of Potash, *Potasœ Carbonus*, make into four grain pills. Take one three times per day—gradually increasing the quantity to three per dose."

4th. "Blister on the back between the shoulders."

5th. "Sponge the system over once per day with tepid saline water, taking care to rub the patient thouroughly dry with a coarse towel or flannel."

6th. "It will be necessary for the patient to take a gentle emetic once per week, for two weeks. This course with care in dieting will soon restore to health."

We here submit another case examined by the same clairvoyant, which also proved very successful. The case was a desperate one, and one of long standing. "This patient is nearly blind; the optic nerves are very weak; one is too far gone to be restored — the right one; the other may be restored, to some extent, by careful treatment. There is a dark aqueous matter secreted from the bloodvessels of the eye and deposited between the retina and the aqueous humor in which the eye swims. This serves very much to obstruct the vision, and unless prompt treatment is resorted to the patient must soon become entirely blind. The disease arises from a scrofulous and rheumatic humor which exists in the blood. In the first place, he felt a pain above the eyes. The eyes are improved by the action of the machine, which serves very materially to strengthen the optic nerves and remove the humor. The right eye might be operated on surgically, but there is great danger, and would not advise it now. There was at one time a great inflammation in this eye, and that was the time to have removed the difficulty. It is now too late to do anything for this eye, but the other may be improved. The nerve of this eye is very weak, and must be gently roused into action. The blood is in a bad condition, and does not circulate equally—it determines too much to the head, in the region of the eyes.

Prescription.—"The patient should take an active cathartic, once per week, of cream tartar and mandrake, (*podophyllum peltatum.*)

2. ½ oz. Tincture of Capsicum, ½ do. Tincture of Iodine, in which put one drachm of Belladonna; rub this well in round the eye and back of the neck, every morning and evening. Bathe the head well with cold water before using the liniment. Bathe the feet every night in hot water, and once a week apply to the eye a poultice of slippery Elm and stramonium leaves, wet with spirits. Use the magneto-electrical machine once per day, taking care to apply the negative pole to the eye, and the positive to the back of the neck. The patient must be careful not to strain his eye by looking at objects. Must not go out in the hot sun, as it causes the blood to flow too strongly to the head, and by this means irritates the eyes. His diet should be light, principally vegetable, and his drink cooling. No liquor or coffee, as either serves to inflame the blood. Should be bled in the feet once per week for three or four weeks, taking one pint of blood at each bleeding."

We have found the use of this machine very efficacious in removing weakness and dimness from the eyes; also inflammation, and even cataract. If it does not effect an entire cure in every instance, there is no case in which we have used it in which it has not proved beneficial. The great forte of this machine is to rouse a thorough and complete action in any particular part, or throughout the whole system. In order to rouse an action through the whole system, it is necessary to apply the positive pole to the bottom of the feet, and the negative pole to the back of the neck. The feet had better, in most instances, be placed in hot water. This will prove successful in rousing an action in general; and at the same time serve very materially to equalize the circulation. I have applied it in this manner, in cases of determination of blood to the head, producing the most decidedly beneficial results in a few minutes. In cases of consumption, where the hectic glow was strongly depicted on the cheek, we have caused it in the same manner to pass off in ten minutes, leaving the cheek quite pale; and every time the machine was applied, the flush would return less vividly. We have succeeded in removing several difficult cases of this character; and we are very sanguine in believing that, where this disease is not too deeply seated, by the aid of Clairvoyance and this machine, we can, in far the greater number of cases, produce a perfect cure.

We have in several instances applied this machine very successfully in cataleptic fits. In every case of derangement of the catamenial discharges, it has proved entirely successful. One application removed a case of six months standing; but in most cases it requires several judicious applications. This machine, although simple in its application, requires as much skill in its use, for producing the best results, as does the giving of medicine.

These small vibratory and rotary Galvanic Batteries, which from their cheapness are falling into every bodies' hands, are destined to injure, and for a time almost entirely ruin, the Duodynamic practice of medicine.—These batteries have not sufficient power in chronic cases to produce a re-action in the system, especially where unscientifically applied. But when properly applied, they are capable of producing very fine results in many instances. The magneto-electrical machine is, however, unparalleled in its power and efficacy in every class and degree of disease.

The vibrations produced by this machine, in the system, are more full and flowing. The effects are quicker, more readily perceived, and more lasting. No remedy or class of remedies has proved so successful in our hands as this simple machine.

METEOROLOGY.

ANCIENT HISTORY OF THE SCIENCE.

By the Senior Secretary to the Meteorological Society.

The early history of Meteorology is involved in much obscurity and uncertainty. The first cultivators of this important science did not arrive at the true cause of those interesting phenomena to which they were eye witnesses; consequently they made but little progress, partly from their ignorance of astronomy, and partly from the want of instruments necessary to make observations. Among the most ancient promoters of the study of Meteorology we find Theophrastus, a celebrated botanist and physician, who collected all the popular prognostics of the changes of the weather that were current in his day; to which he prefixed the most ancient ones that are to be found in the Bible: the whole of which Aratus put into Greek hexameter verse in his "Diasema." These Virgil expressed in the most elegant language in his "Georgics." Lucretius copied many of them into his celebrated book, "De Rerum Natura." Aristotle, Plautus, Seneca, and Lucan, also, accurately took notice of, and recorded, atmospheric phenomena. Thus we find both Greeks and Romans handing down these popular opinions. More modern philosophers have written commentations on all these authors, and expatiated largely upon them in copious notes, and varied illustrations. Still Meteorology made no progress as a science. The object of their observations was to enable them to predict with greater certainty the future changes of the weather; indeed, this is the most useful purpose to which Meteorology can be applied; but we do not possess, even at the present time, sufficient data to do this with any degree of certainty. Shepherds, husbandmen, mariners, and others, whose employment kept them almost constantly in the open air, and who had made themselves familiar with the most popular prognostications of the ancient philosophers just referred to, could foretel with greater certainty what sort of weather was coming than their most scientific philosophers and meteorologists: hence they formed a sort of intermediate code of prognosticating rules, founded partly on the ancient traditions, and partly on experience. We find too, numerous little sayings, proverbial adages, and quaint expressions respecting the weather, which have been handed down from the remotest antiquity; but many of which, from a departure from the ancient writers, and from repeated introductions of new adages, after a lapse of a few centuries, lost their force and dwindled into mere absurdities.

The ancient writers, the authors, or collectors of those adages which had reference to the changes of the weather, founded their prognostics upon their imperfect notions of astronomy. The periods of the heavenly bodies were made use of to measure the parts of the year, and their regular returns were accurately compared with the periodical returns of terrestrial phenomena, and used to designate the year, the months, the days, the hours, and the seasons. Ephemerides, calenders, and almanacs, of all kinds, began to be constructed for the purposes of determining the several seasons and the occupation of the husbandmen in each; hence we find, in all the ancient works on this subject, numerous astronomical allusions and references to the great antiquity of the constellations, all of which bear testimony to the importance attached to this science, if at that time it could be justly so termed, by our forefathers. Their agricultural occupations were regulated by the rising and setting of the constellations of the zodiac, and others, that were very conspicuous in the heavenly vault; they then compared these daily phenomena with the arrival of birds, the flowering of plants, and other natural phenomena, and thus laid the foundation of the ancient rustic calenders. Virgil alludes in the commencement of, and indeed throughout his "Georgics," to the celestial signs of the seasons. He says:

——————"quo sidere terram
Vertere, Mæcenas, ulmisqueadjungere vites conveniat."

"Under what star we may prepare the ground,
And when to elms the grape vines may be bound."

And to the sailor he says:

"Navita tum stellis, numeros et nomina fecit,
Pleiades, Hyades, claramque Lycaonis Arcton."

"The sailors quartered heaven, and found a name
For every fixed and every wandering star,
The Pleiads, Hyads, and the Northern Car."—DRYDEN.

These observations must have been a source of amusement and advantage, both to the shepherds, the husbandmen, and the mariners of old: who, being constantly exposed to the heavens, in a fine climate, and beneath an almost perpetually serene sky, had innumerable opportunities of watching the various changes of the length of the days, the progress of the seasons, and the atmospheric phenomena connected with them. The science of the celestial signs is ascribed by Cicero to the Assyrians and the Babylonians. Other writers ascribe it to the Indians and Egyptians. Of this, however, we are not satisfactorily informed, but we have seen that it was earnestly cultivated both in Greece and Rome, at a very early period. Steering vessels by the stars is among the earliest recorded facts in the history of navigation; so is the planting, sowing, and gathering-in the fruits of the earth by the stars, among the earliest records of agriculture. The ancient mariner had his fixed index of the north pole—the "Tyrian Cynosure:" he watched for the "rainy Hyades, the stormy Orion, and the signum pluviale capellæ." He knew, by the rising of the "Pleiades," when the seas would be open for sailing; he guarded against the coming storm by the setting of "Arcturus," and the rising of the "Hoedi." He knew the hour of the day by the altitude of the sun, and he kept the watches of the night by looking well to the position of "Ursa Major." The husbandmen, too, marked the different seasons by the overflowing of the Nile; for "Sirius, or the Dog-Star," admonished him of its approach: by the setting of "Pisces," and the return of the swallow, he marked his season of spring. In short, every rustic operation had its admonitory sign, and the husbandman regulated his labors for every month in the year by the signs of the zodiac. The shepherd was equally dependent on the movements of the heavenly bodies. He had his Pascal "Aries," and his star of "Arcady." He unfolded his flock with the morning ray of "Phosphorus's," and watched at eventide for the "star that the shepherd fold."

ELECTRICITY.

Continued from page 220.

In the experiments on excitation, (given in the ninth and tenth numbers,) three things are to be considered.

First — How it is, that if the electric fluid is so easily excited, its effects are not always visible.

Secondly — How can these various effects be attributed to the same cause.

Thirdly — What is the real cause of them, or of electrical effects in general.

This last proposition we may now discuss. The others will need for their full elucidation the electrical machine. We refer, therefore, under the first and second heads, to the forthcoming chapters on electrics and conductors; and electrical attraction and repulsion. We have now rather to do with

THE CAUSE OF EXCITATION.

It will have been observed, that, wherever we have shown friction, there has also been separation of contact; and upon a strict examination it will be found, that, although the rubbing of two dissimilar bodies together may, and does, occasion the electric fluid to be disturbed, yet it is only when these bodies are held apart, that each is found to put on electrical appearances. We say each, for although only one may appear excited, yet it will soon become apparent that both are equally affected, though in a different manner, as will be explained hereafter. Thus in *Ex.* 1 the brown paper is the one body, and the coat the other. In *Ex.* 7 the ribbons are excited by the hand, and it is when the hand is drawn away from them that they show themselves electrical; so also in *Ex.* 8, the comb passing over the hair must certainly be separated in turn from those particular parts it touches in its course along, and not till then is it seen that those parts are electrical; and thus in every experiment there is not merely friction, but separation of the parts rubbed together; were it not so no electrical appearance would be perceived, as is clearly proved by

THE SULPHUR CONE.

This apparatus is formed from a large wine or ale glass. This is cleaned, and a part of the outside covered with tin foil. A wire is twisted round this covered part, and bent so as conveniently to hold a pair of pith balls suspended on very fine wires, or on linen threads. Withinside the glass is to be poured melted sulphur, to about the same height, or a little above the edge of the tin foil, and the end of a glass rod, or else of a silk cord, dropped into the sulphur while melted.

Ex. 23.—Lift up, by the glass, or silk handle, the sulphur within the conical glass, and at the moment of separation the pith balls will diverge, or separate from each other. Let the sulphur drop down again into the glass, and this action of the balls will cease. Again produce a separation of contact, and they will again diverge; and thus, for a considerable time, the alternate action will be kept up, even indeed for days and weeks.

Ex. 24—Take a piece of glass, about five inches long by three inches broad—warm it, wrap tin foil all over it, and rub the outside of the tin foil smartly with the hand. The glass thus excited, held to the cap of Bennet's gold-leaf electrometer, will not show any electrical effect while it remains wrapped in the tin foil, but if this be removed, and the glass alone be presented, the gold leaves will instantly diverge.

Ex. 25.—Varnish one side of a piece of glass—when quite dry and hard scrape off some of the varnish with a knife, on to the cap of the electrometer. The electric fluid, rendered apparent by the separation of contact between the varnish and glass, will be indicated, as before, by the divergence of the gold leaves. Were it needful to illustrate this principle more strongly, the experiments with the *Electrophorus* and *Circular Rubbing Machine* are conclusive.

THE ELECTROPHORUS,

Which may truly be called the cheapest and simplest electrical machine, which is of real value, is described, and may be made as follows:—

Procure a round piece of tin, about ten inches over, and have the edge of it turned up about a quarter of an inch, so as to be capable of holding some of the following mixture, (which is to be mixed together,) one pound of yellow rosin, and two ounces of wax. This being poured into it, and suffered to cool, one part of the Electrophorus will be complete. Next provide a round plate of wood, about a half an inch thick, and six or seven inches over, which must have a smooth edge, and without any sharp points or angle, cover this with tin foil, and fix a glass rod to the middle of it as a handle. This may altogether cost fifty cents, and is a really useful electrical machine, capable of showing all the fundamental facts of the science.

Ex. 26.—To excite it, warm and wipe the glass handle, and also the resinous plate. Rub this briskly with a warm flannel, and put the wooden plate upon it, holding it by the glass handle—Touch the wooden plate for a moment with the finger, and it will be full of the fluid in a disturbed state, not, however, apparent until the wooden plate is lifted up, when a spark may be taken from it—put it down again, touch it with the finger, and lift the plate up again, (first removing the finger,) and a second spark may be taken, and so on for a considerable length of time.

Ex. 27.—Fasten near to the edge of the upper plate of the Electrophorus a bent wire, bearing on the end of it two suspended pith balls—whenever the upper plate is removed from the lower, both being excited and touched with the finger as above directed, the pith balls will be violently repelled from each other.

Ex. 28.—If the resinous plate be excited and placed upon a glass stand, and two pith balls be suspended from the rim of it—whenever the upper plate is lifted up, these balls also will diverge, showing that the lower plate only appears excited, when separation of contact ensues.

THE CIRCULAR RUBBING MACHINE

Consists of a square frame of wood, supported by a square foot, having a circular rubber or cushion stuffed with flannel and covered with leather, which is turned by a handle at top. This rubber rests upon a plate of glass, about eight inches in diameter. The under surface of the glass has pasted upon it a round piece of tin foil, three or four inches over, with two pith balls hanging by fine wires or a thread from the centre of it.

Ex. 29.—Prepare the apparatus by warming the glass, and spreading a little *amalgam* on the cushion—turn round the handle, which will produce a friction, and excite the glass. In this state there will be no appearance of the fluid being disturbed, until the cushion be lifted up, when the balls will diverge—placing it down again their motion will cease, and thus they may be alternately moved, by producing and separating contact.

Amalgam.—Melt in a ladle half an ounce of zinc. When melted, add and stir up with it two ounces of quicksilver. When cold, pound it with a little wax or grease, when it will be fit for use.

To be continued.

A HINT.

"Adrian was the first emperor who wore a long beard, and this he did to cover the warts on his face."

Such is the origin of most of our fashions. Some diseased or malformed persons of fortune and distinction find it convenient to hide the odiousness of disease, or the unsightliness of malformation, by some particular fashion in dress, which would be less disgusting to the observer, than the appearance of the disease, or malformation. And this is made sufficient reason for the healthiest or best formed person in the community to ape the example which serves to improve the appearance of one, while it renders the thousands ridiculous—subverts their judgment into mere imitation, converting the man into a baboon, and the woman into a monkey. To this succeeds profligacy, dishonesty, luxury, idleness, disease, and perhaps death closes the scene, when the curtains drop, and the *monkeys* and baboons are forgotten!

It appears as hopeless to reclaim a fanatic by persuasion as to convince a heretic by stripes. It is fruitless to dispute where men are not agreed upon principles. A fanatic is singly guided by his own internal motive or instinct, which he terms his conscience and his call. He lays no stress upon his understanding, and, therefore, it is idle to reason with him. A different kind of cure is hereby required from that to be used with a heretic. A physician, in this case, may be more successful than a divine. I take fanaticism for a real disease, or a kind of hypochondriacal affection. Experience shows, that those we commonly call the enlightened, have usually their bodies overloaded with bile and corrupted humors. Many fanatics have been cured by medicine, so as totally to lose their gifts of prophecy or commissions, and again become sound members of the community.

DEATH WARRANT OF CHRIST.

The Courier des Etats Unis of a late date says: 'Chance has put into our hands the most imposing and interesting judicial document, to all Christians, that has ever been recorded in human annals; that is, the identical death-warrant of our Lord Jesus Christ. We inscribe the document from a copy of the translation;

SENTENCE

Rendered by Pontius Pilate, acting Governor of Lower Gallilee, that Jesus of Nazareth *shall suffer death on the cross.*

In the year seventeen of the empire of Tiberius Cæsar, and the 25th of March the City of Holy Jerusalem: Annas and Caiaphas being priests, sacrificators of the people of God, Pontius Pilate, Governor of Lower Gallilee, sitting on the Presidential Chair of the Prætory, condemns Jesus of Nazareth to die on the Cross between two thieves — the great and notorious evidence of the people saying—

1. He is a seducer.
2. He is seditious.
3. He is an enemy of the law.
4. He calls himself falsely the Son of God.
5. He calls himself King of Israel.
6. He entered into the Temple followed by a multitude bearing palm branches in their hands.

Order the Centurian, Quintus Cornelius, to lead him to the place of execution.

Forbid any person, whomsoever, poor or rich, to oppose the death of Jesus.

The witnesses that signed the death of Jesus, are:

1. Daniel Raboni, a Pharisee.
2. Joannus Horobable.
3. Rhapdel Robadt.
4. Capat, a citizen.

Jesus shall go out of the city by the gate 'Strenuous.'

The above sentences are engraved on a copper plate; on one side is written these words:

'A similar plate is sent to each of the tribes.'

It was found in an antique vase of white marble, while excavating in the City of Aquilla, in the Kingdom of Naples, in the year 1825, and was discovered by the Commissiriat of Arts, attached to the armies of France. At the expedition of Naples it was found enclosed in a box of ebony, in the sacristy of Cuartem. The French translation was made by the members of the Commission of Arts. The children requested earnestly that the plate might not be taken from them. The request was granted as a reward for the army. M. Denon, one of the savans, caused a plate to be made of the model, on which he had engraved the above sentences, it was bought by Lord Howard, for five thousand eight hundred and eighty-four francs.

TASTE FOR SCIENCE.

A mind which has once acquired a taste for scientific inquiry, and has learned the habit of applying its principles readily to the cases which occur, has within itself an inexhaustible source of pure and exciting contemplations; one would think that Shakspeare had such a mind in view, when he describes a contemplative man as finding

> Tongues in trees, books in the running brooks,
> Sermons in stones, and good in everything.

Accustomed to trace the operation of general causes, and the exemplification of general laws, in circumstances where the uninformed and uninquiring eye perceives neither novelty nor beauty, he works in the midst of wonders: every object which falls in his way elucidates some principle, affords some instruction, and impresses him with a sense of harmony and order. Nor is it a mere passive pleasure which is thus communicated. A thousand subjects of inquiry are constantly arising in his mind, which keeps his faculties in constant exercise, and his thoughts perpetually on the wing, so that lassitude is excluded from his life; and that craving after artificial excitement and dissipation of mind, which leads so many into frivolous, unworthy, and destructive pursuits, is altogether eradicated from his bosom. It is not one of the least advantages of these pursuits, which, however they possess in common with every class of intellectual pleasures, that they are altogether independent of external circumstances, and are to be enjoyed in every situation in which a man can be placed in life.—The highest degrees of worldly prosperity are so far from being incompatible with them, that they supply additional advantages for their pursuit, and that sort of fresh and renewed relish which arises partly from the sense of contrast, partly from experience of the peculiar pre-eminence which they possess over the pleasures of sense, in their capability of unlimited increase and continual repetition, without satiety and distaste. They may be enjoyed, too, in the intervals of the most active business; and the calm and dispassionate interest with which they fill the mind, renders them a most delightful retreat from the agitations and dissensions of the world, and from the conflict of passions, prejudice and interest, in which the man of business finds himself continually involved.—SIR JOHN HERSHEL.

HUMAN LIFE.

Dr. Caspar, of Berlin, says, that the longevity of females is greater than that of males. He shows that the medium or average duration of life, has increased considerably in most European cities of late years.—In London this increase is great, for it would seem that within the last century, probable life has increased by twenty years.

Another important agent or influence on the probable duration of life, is *marriage*. It is proved by Caspar, that the marriage state is favorable to longevity, and especially in reference to the male sex. He adds:

The so called climacteric periods of life do not seem to have any influence on the longevity of either sex.

The medium duration of life is, at present, in Russia, about 21 years; in Prussia, 29; in Switzerland, 34; in France, 36; in Belgium, 36; in England, 38 years.

In reference to the influence of professions or occupations on life, it seems that ecclesiastics are, on the whole, the longest, and medical men the shortest lived. Military men are nearly between the two extremes;

but yet, proportionally, they more frequently than others, reach very advanced years.

The mortality is very generally greater in manufacturing than in agricultural districts.

The mortality among the poor is always greater than among the wealthier classes.—*The World in a Pocket Book.*

Brocchieri Water Tested.—The efficacy of this fluid in staunching wounds, and restoring severed arteries, was fully established in New-York on Monday week, according to the testimony of the Courier and Enquirer, in presence of the editors, and Drs. Washington, Hosack, Wilkes, and other physicians. Dr. Barabino, of the United States navy, opened the carotid artery of a sheep, by a long transverse cut, so that the blood spouted. "A pledget of wool, plucked from the back of the animal, was laid and *lightly* held on the wound, and the water was then plentifully applied. In a few minutes the flow of blood was checked—in ten minutes more it had ceased—in twenty minutes the pledget was withdrawn, not without some effort, owing to its strong adhesion to the part, and the wound was free from blood, and the artery closed! In twenty-three minutes the animal was walking about the yard." A second experiment was made upon another sheep with similar success. These are the *facts*, as the editors of the Courier testify.

It is said that 2 ounces of brandy, 2 drachms of soda, a little sugar and water, form as good a styptic, as the Brocchieri water. It operates (as alleged) by powerful action on the blood, a good way *within the vessel!*

In a paper read before the Paris Academy on the treatment of sores and ulcers, it was stated that albumen plays the chief part in external and internal diseases, and alone forms the cicatrice and all the formation of the tissues. If an ulcer be touched with nitrate of silver, or other metallic salt, the metal will be found in a state of oxide, which shows that the acid has quitted its base to fix upon the albumen, the true vegetable alkali.

The article on "Gambling and its Consequences, with the comments upon the same by O. S. Fowler, in the preceding number, was copied from the "American Phrenological Journal." The fact that the proper credit was not given at the time, was overlooked.

We have received the prospectus of the "WESTERN MEDICAL TRUTH-TELLER," edited by W. T. LINN, M. D., to be published simultaneously at Greenville and Hillsborough, Illinois. The mediums of information are multiplying and keeping pace with the growing energies of our country. The effect upon the intelligence of the people is as notorious as a May shower upon a half-blown rose. The former is as necessary to the development of mental power, as the latter is to the development of leaves and flowers.

TERMS.—The Western Medical Truth-Teller will contain 16 large octavo pages, issued semi-monthly, on fine super-royal paper, convenient for preservation and binding. Making a volume of 416 pages of great value, title-page and index, at the extremely low price of ONE DOLLAR per annum, ☞ INVARIABLY IN ADVANCE. ☜ But in case payment be delayed six months, $1 50, twelve months, $2 00 will be required.

STAMMERING.—If any one addicted to stammering will inhale the air copiously, or draw in his breath strongly, he will find no difficulty in speaking easily and without stammering. Words cannot come from the mouth without the lungs have their power, and that they cannot have without a sufficiency of air.

TALENT AND GENIUS,

BY SIR E. L. BULWER.

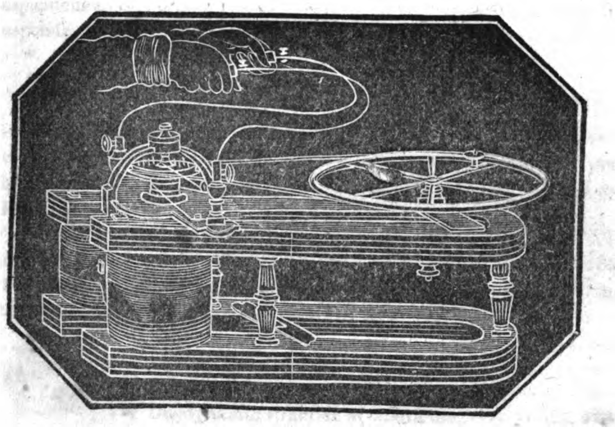
Talent convinces—Genius but excites;
This tasks the reason—that the soul delights.
Talent from sober judgment takes its birth,
And reconciles the opinion to the earth.
Genius unsettles with desires the mind,
Contented not till earth be left behind.
Talent, the sunshine on the cultivated soil,
Ripens the fruit by slow degrees and toil.
Genius, the sudden Iris of the skies,
On clouds itself reflects its wondrous dyes;
And to the earth, in tears of glory given,
Clasps in its airy arch the pomp of heaven!
Talent gives all the vulgar critics need—
From its plain horn-book learn the dull to read.
Genius, the Pythian of the Beautiful,
Leaves its large truth a riddle to the Dull—
From eyes profane the lovely Iris screens,
And fools on fools still ask—"what Hamlet means?"

THE ST. LOUIS

MAGNET:

DESIGNED TO ILLUSTRATE THE

PHILOSOPHY OF HUMAN NATURE.



T. J. M'NAIR,

EDITOR AND PROPRIETOR.

MONTHLY—ONE DOLLAR PER ANNUM IN ADVANCE.

VOL. II.

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THE

SAINT LOUIS MAGNET.

VOL. II. SAINT LOUIS, MAY 1, 1846. NO. 1.

FRONTISPIECE.

We change the character of our Frontispiece for the second volume of the Magnet. Not for the reason that we believe in Mesmerism less, nor because we believe in Magnetism more; but for the reason that we believe in keeping pace with the vast developments in science. Mesmerism has probably opened a greater field for experiments in the imponderable agents, and which has led to greater practical discoveries in electrical science, than any other *ism* which has ever taken possession of the human mind. Its phylosophy has disarmed metaphysics of its mystical character, and reduced it to Natural Phylosophy. The vast and wonderful improvements in physics—the Magneto-Electrical Machines, by means of which Electricity—the thunderbolt of Heaven, is modified and rendered perfectly congenial to the human system, and converted into one of the most powerful and efficient remedial agents known to man, is the result of the enquiry excited through the agency of Mesmerism.

Every day's experience increases our knowledge, and strengthens our belief in these branches of Natural Phylosophy, and redoubles our confidence in their remedial efficacy.

Mesmerism has proved a mild and remarkably successful remedial agent in our hands. We have succeeded in removing a great number of diseases, with Mesmerism, which had resisted every other mode of practice. The patients had been abandoned and pronounced hopelessly incurable—doomed to drag out miserable existences, and consigned to premature graves! Who, now through the agency of Mesmerism *alone*, have entirely recovered their health, and have long since returned to their respective avocations with gratitude and delight. But Mesmerism is a very laborious method of practicing medicine; and although it is very congenial and soothing to the human system, and powerfully efficient in removing diseases; yet, it is very debilitating, and, in fact, in many instances, very injurious to the operator. This difficulty is mostly, if not altogether, obviated by the introduction of the Magneto-Electrical machine into the practice of medicine; and which has, in our practice, superseded the use of Mesmerism, or Animal Magnetism, in far the greater number of cases. The machine is more powerful, and in most cases more efficient, with one fourth part of the labor, and without any prostration to the operator, which so frequently, if not always, attends the practice of Mesmerism. But, I am not quite so certain, that it is as congenial and soothing, in extreme nervous irritability as Mesmerism. We, therefore, in our practice choose to use both, exercising our judgment when to use the one and when the other.

A few days since in a case of extreme irritability of the stomach, which everything in the form of drugs had failed to allay—even cataplasms of mustard applied externally to the stomach failed to produce the desired effect, and the attending physicians became alarmed for the safety of the patient; and finally concluded that mortification would take place and death ensue. This was the unfavorable condition of the patient when we were called in. After being informed that this was the patient's condition, we immediately applied the machine, placing the negative pole over the region of the stomach, and passing the positive pole along the whole length of the spinal column. This action was continued for about ten minutes. We then changed the use of the machine for mesmerism, and applied one hand over the epigastric region, and the other over the forehead, letting the thumb rest on the organ of somnolence on one side, and one finger extending to the same organ on the other side, which is located nearly in the region of constructiveness, as laid down by Phrenology. The patient soon went to sleep, from which he was aroused in some three quarters of an hour, or more, quite revived. We then administered Croton oil in castor oil, together with enemas, which soon produced an evacuation of the bowels. The patient speedily recovered, but well convinced that under any other treatment he must have died.

In this case, we found both Animal Magnetism and the use of the machine, *neurologically* applied essentially beneficial and perfectly successful; and in a case, too, which had resisted every other method of treatment.

The difference between mesmerism and the action of the machine is, that mesmerism is a more congenial and soothing modification of electricity than the action of the machine. One is naturally generated by the animal body. The other is artificially generated by machinery. The one, is more powerful and efficient, the other, more mild and soothing. We choose to use both, as necessity requires.

Clairvoyant Examination of Miss ——. "Irritable and relaxed state of the nervous system, liver torpid, heart relaxed and feeble—the blood does not pass freely through the ventricles. Lungs irritable and somewhat decayed, having become so from the irregularity of the euterine secretions."

The prescription was as follows, viz:

" 1-4 lb. cherry bark; 2 oz. dogwood bark; 2 do. pleuracy root; 1 1-2 do. Lobelia herb; 2 do. comfrey; 1 1-2 do blood root; 2 1-2 do. yellow dock; 3 do. lady slipper; pulverize, and add one gallon best Teneriffe wine. Let the patient take half a wine glass full three times a day."

2d. "Sulphate of iron; carbonate of potash, equal quantities; mix and make into four grain pills; let the patient take one three times per day for five days, then increase to two three times per day."

3d. "Sponge the system over every evening with cold salene water. Bathe the feet in hot ley water every other evening. The Magneto-Electrical Machine should be applied every day. The positive pole should be placed over the lower cervical vertabræ, and the negative alternately over the region of the heart and liver. The positive pole may then be placed under the bottom of the feet, and the negative to the back of the neck."

Under this treatment the patient rapidly improved for several days; but the medicine soon failed to produce the desired effect, and the patient rapidly declined. A second examination was made. But the clairvoyant developed nothing new in respect to the disease, sustaining the first description; but stated that the first prescription had lost its effect upon the system, and it was necessary to change it, which he did as follows: 1. "Vapor, bath twice per week."

2d. "2 oz. Solomon Seal; 1 1-2 do. Columbo root; 1 do. Peruvian bark; 1 1-2 do. yellow dock; 1 1-2 do. Sanguinaria; 1 1-2 do. black root; 1 1-2 do. mandrake; 2 do. Sarsaparilla, make into three pints syrup, and add one pint best brandy. Let the patient take a table spoon full three times per day."

3d. "Sulphate of iron, (*Ferri Sulphus*,) 2 drachms; iodide of potassium, 1 1-2 do.; carbonate of potash, 2 do.; gum myrrh, 1 1-2 do.; Spanish saffron, (*Crocus Sativus*,) 1-2 do.; aloes, 1 do.; mandrake 1-2 do.; make into five grain pills. Let the patient take one, night and morning, rub the spinal column and side with stimulating liniment, once a day."

The bathing was recommended to be continued as previously prescribed.

The patient again improved for a few days, but the medicine soon ceased to produce the desired effect upon the system, and the patient rapidly declined, and a third examination was made, which developed the following facts, in addition to what had been developed in the first examination, viz: "Not a sufficient determination of blood to the surface. Almost an entire inactivity of the vital organs. Heart very much deranged and contains some water."

The clairvoyant gave us distinctly to understand that the patient would not survive but a few days. He, however, prescribed what he stated would be very good for her, merely too sooth and palliate, rendering her as easy as possible while she lived.

1st. "Give of super tartrate of potash a teaspoonful morning and evening."

2d. "Tincture of Lobelia, 1-2 an ounce; 1-2 do. Sanguinaria; 1-2 do. Valerian, mix, and give ten drops three times per day. The dose may be gradually increased."

As stated by the Clairvoyant, the patient only lived a few days. Being present shortly after the patient expired, I indicated a desire to the friends of the patient, to have a post-mortem examination made, to which they willingly consented; observing, that, if it would conduce to the benefit of science, and the welfare of the human family, they saw no reason why it should not be done.

This, I must confess, was magnanimous and philanthropic. It indicated a degree of thought and intelligence far superior to that which is commonly developed on such occasions.

The two Drs. Knox, Clark, and Prof. Johnson were called in, with myself, and the examination was completed. The right lobe of the lungs was found to be very much decayed; and the heart very incompetent to perform its functions, and to our surprise about half a tea cupful of water was poured out of the heart, which fully sustained the description of the patient's condition by the Clairvoyant.

This patient had been under medical treatment for five or six years, in which time as many or more physicians had tried their skill; but the patient gradually declined in health, until all hopes of her recovery was despaired of. About the fifth of last January we were consulted in respect to this case, and requested to make a clairvoyant examination, and treat her accordingly. The result of which we have laid before our readers.

P. S. We would further remark, that the Magneto-Electrical Machine, was frequently applied through the course of treatment, which, in every instance removed the urgent symptoms, and greatly improved the feeling of the patient; but it was too late to give permanent relief.

* * *

ELECTRICAL THEORY; OR DUODYNAMIC PRACTICE OF MEDICINE.

In order to carry out our views in respect to the electrical theory of health and disease—the Duodynamic practice of medicine; it will be requisite, *first*, to determine precisely what constitutes health? and *secondly*, what constitutes disease? and *thirdly*, the cause of the healthy body becoming diseased; and *fourthly*, the proper means of restoring the diseased body to its healthy condition.

These four propositions, in their solution, involves the whole philosophy of the practice of medicine; and simple as they may seem in themselves, they unfold the whole mystery of man organically considered. Without the proper solution of these problems, the organic law is not understood, and consequently cannot be obeyed; nor the punishment attached to its violation averted; neither by the individual who has violated the law, nor the Physician, who professes to mitigate, or expiate the punishment attached to the law, organic or physical. The physician, who practices independent of this knowledge, practices empyrically—He hopes to remove disease, upon the same principle, that our gamblers hope to become rich by buying *lottery* tickets. It may come up a prize; but there are many chances for a blank. This will not be the case when the laws which govern organic matter, are properly understood.

Organized bodies, are composed of organs, and these organs are composed of infinitely small particles of matter, which may still be subdivided, until the ponderable matter is lost in *etherial* matter; imponderable and invisable, which may properly be termed unparticled matter, or pure spirit. This spirit, by its electrical, or magnetic affinity, combines in infinitely varied proportions, producing all the variety of matter in existence, organic or inorganic.

The human animal body, is a very complex organized body. Bodies are complex in proportion to the number of organs which compose them. Each organ performs a definite function, and the whole of the organs which compose the body, are intimately connected together, by nervous cords, (*Telegraphic wires,*) constituting one perfect body.

HEALTH, then, consists in, *fiirst*, the proper combination of the molecules of matter, which compose the organs. *Secondly*, the perfect arrangement of the organs composing the body. *Thirdly*, the due proportion of each organ, to the other; and *fourthly*, the complete connexion of the whole. The first, would give proper texture, which would be indicated by the temperament. The *second*, would give proper form for the perfect exercise of their functions. The *third*, would give propersize for the exercise of the whole together; and the *fourth*, binding the whole in *one*.

A body thus formed, would be perfect, and consequently healthy. This solves our first problem. Now it is very evident, that the reverse of this would constitute disease, and that the degree of disease, would be in proportion to the degree of variation from this healthy or perfect condition, or adjustment of the molecules, which compose the organs; for in this consists the foundation of health and disease.

DISEASE, then, consists in the improper combination of the molecules, which compose the organs of the body diseased. This is new doctrine we admit, and not *orthodox*. We do not however, write for orthodox principles; but truth.

In what does disease consist? In the form of an "*evil spirit*," entering into the body, or as our orthodox contemporaries would say, "*Miasmatic effluvia*," or poisonous matter. But we would ask, what makes this matter poisonous to the human system? when it constitutes the very life and existence of other animal bodies. It is the very matter out of which insects are created, and upon which they feed. And why is not this matter poisonous to these insects? We answer, for the reason, that the same combination of the molecules, which compose this matter, and which is found to be so poisonous to the human system, enters into the composition of those animals, and consequently these animals being composed of this poisonous matter, are also poisonous to the human system; as, for instance, the bite of a musqueto, &c. And why are they poisonous to the human animal? For the reason, that the combination of the molecules, in these animals, are very different from what they are in man. It is for the same reason, that certain atmospheres are so poisonous to man; as well as minerals, vegetables, &c.

Different ages of the globe, have produced, or given birth to different species of vegetables, and animals. When our globe was organizing its materials into proper order, it was *excited*, and the temperature was extreme. The molecules combined in very simple proportions—coarse and unwieldy. The vegetable and animal kingdoms, partook of the same nature, being created out of such coarse and loosely combined materials. The vegetables of that age, were coarse grained, and grew large and unwieldy, as is shown geologically. The same was true of the animal kingdom, as is fully proven by the immense size of their skeletons, which records the fact. Such is still the case in the Torrid Zone where the climate is extremely hot. The vegetables and animals, are of much larger grouth, and more unwieldly in their size.

In the primitive ages of our globe, the vegetable and animal kingdoms were more simple in their organization, less complex in their characters, and consequently, very little liable to disease.

But our globe gradually improved in its temperature, and the molecules of which it is composed, combined in more complex proportions, and consequently, became more solid and elastic in its texture. The vegetable and animal kingdoms, are governed by the same law of progression, and consequently, have become much more complex in their characters—solid and elastic. But the animal machine, like all other mechanical operations, the more complex the machinery, the more liable to derangement, and the more difficult to repair. For this reason, man is much more liable to disease, than the lower animals, and much more difficult to treat successfully when diseased.

We have now solved two of the propositions, but the most important to the medical practitioner, yet remain to be solved.

(*To be continued.*)

* * *

ELECTRICITY.

(*Continued from page 279, of the first volume.*)

In the early stage of electrical science, little more than a few trivial experiments were known, and then but imperfectly understood; but when the electric light had been seen, the noise of the spark heard, and still more when electricians by the discovery of the Leyden phial were enabled to operate with accumilated electricity, its analogy with lightning was soon suspected, though means did not at first offer themselves to prove experimentally that the two fluids were identical. It remained for the comprehensive mind of Dr. Franklin, not merely to suggest means of proof, but to carry those means into the most successful operation. He imagined the nature of the fluids to be identical, by the similar forked appearance of the spark given off by the machine, and the zigzag flash of lightning; also by the same effect that each has on animal life, in melting metals, disturbing the power of magnets, and rending to pieces such imperfect conductors as they may have to pass through.

The first method which offered itself to his notice was raising in the atmosphere lofty metallic rods, and as a spire of very considerable altitude was at that time erecting at Philadelphia, he was waiting with some impatience its completion; when he thought that if a metallic pointed rod was attached to a kite, it would be an effectual conductor from the clouds to the earth. He therefore, after preparing a large silk handkerchief, took the opportunity of the first approaching thunder storm, and went into a field where there was a shed proper for his purpose. But dreading the redicule which he feared might attend an unsuccessful attempt, he communicated his intention to no one but his son, who assisted him in flying his kite. The kite was raised, a considerable time passed without appearance of success, when just as he was beginning to despair, he observed some loose threads upon the string of the kite begin to diverge and stand erect; on this he fastened a key to the string, and on presenting his knuckle to it, was gratified by the first electric spark that had thus been drawn from the clouds; others succeeded, and when the string had become tolerably wet by the falling rain, a copious stream of the electric fire passed from the conductor to his hand, a large quantity was collected, and in the shed he performed with it all the experiments then known.

These interesting experiments were, of course, repeated in almost every civilized country with variable success. In France a grand result was obtained by M. Romas, who constructed a kite seven feet high, which he raised to a height of 540 feet, by a string having a fine wire interwoven through its whole length.

Believing that some of our readers may wish to know somewhat more of this apparatus, and to perform the experiments adapted to it with certainty of success, and at the same time perfect safety to themselves.

THE ELECTRIC KITE.

Tie together in the form of a cross two canes, or still better two rods of deal about three feet long each. To the four corners of the cross-sticks fasten the corners of a large silk handkerchief; a loop must be made by piercing a hole in two parts of a handkerchief, and a string fastened to one of the sticks, in the manner of the loop of a boy's kite; indeed a common kite will answer the purpose quite as well as one of silk, except that if it is to be used in stormy weather, the latter will by wet soon become spoiled. The size also is of very little consequence, except that the larger the kite the higher it will usually ascend, and therefore for this cause, and this alone, a large kite is most effective. The kite itself being formed, and having a common kite tail attached to it, or else long stripes of calico sewed together, which will be found more convenient: it must be furnished with two or three pointed thin copper wires fastened to the loop, extending upwards a few inches above that part of the kite which flies highest, and projecting from each other.

The string is the next object of importance, that, evidently, is the best which has a fine wire or two passing down it. Most persons desiring this string, have taken the trouble to wind the wire around the whole length of string previously bought, not knowing that were they to take the fine wire to any string spinner, he would weave it up along with the hemp at once, putting a wire into each strand, if required, and at the expense of a mere trifle additional. Supposing a person should be in such circumstances or situation that this string cannot very easily be procured, the best substitute for the wire will be found in soaking a common string in salt and water for an hour or two previous to using it. It will thus imbibe sufficient moisture to render it a good conductor, even in a very dry atmosphere, where string wetted with water only would become useless. The upper part of the string must be carefully connected with the pointed wire carried above the loop.

The lightning, or electric fluid, being thus attracted at the kite, and led downwards by the string, it must be retained from passing silently to the earth beneath. For this it will be necessary that the lower end of the string be attached to a cord of silk, about three feet long, to be kept quite dry, and for convenience of operating, a large key is usually tied at that part where the string and silk are united. The kite being raised, the electric fluid will pass down to the key, here being stopped by the silk cord, will be given off in sparks or flashes, more or less powerful in accordance with the quantity of lightning which may be in the air. The operator may easily conduct it elsewhere, or charge his conductors or batteries without difficulty.

No philosophical instrument is more simple in form and easy to construct than the electric kite, yet no one needs more care in its management. To fly it when a thunder storm is approaching would be attended with the greatest danger, unless every precaution be taken. In this state of the atmosphere the raising and lowering of the kite requires the utmost circumspection; to let the string wind out immediately from a ball in the hand, making thereby the body a part of the conductor is too venturesome, the string should pass over and touch an iron railing, or through a ring fastened to a metal rod driven deeply into the ground, whilst the person, who holds it, is placed upon a dry glass legged stool, or otherwise insulated; as for example upon a pile of books, or paper. When up a sufficient height, the remainder of the string may be fastened to the key, and the operator able to remove himself to a safe distance. It is advisable also, that the electric fluid should never be introduced into a dwelling house, for a thunder storm is a terrific agent to tamper with, and once invited into our houses, may occasion dreadful damage, ere it be allayed. We have seen flashes of four or five feet in length, and once when we left our kite up during a stormy night, the key appended to it seemed as it were a ball of fire illuminating all around, and the very kite and string appeard as if enveloped in lambent flames.

Fortunately to operate in weather like this is not necessary. The calmest and brightest evenings of summer, the densest fogs of autumn, and the clearest frosts of winter, yield mostly as much fluid, as is convenient to use; in either time *small* sparks will be visable, and may be felt by a nuckle presented to them, when they will be found very different from those usually afforded by the electrical machine. The air will be found *positively* electrified ninety-nine times out of each hundred, yet the sparks as given by the kite string will be red, comparatively short, make but little noise, and be felt so much more pungent when passing to the hand, that they rather resemble the *vibration*, or small shock, than that known as the electric spark.

Note.—To ascertain whether the atmosphere be charged positively or negatively, charge a Leyden jar (holding about a pint) with the fluid collected, and discharge it by a helix or open coil of wire, which has within it a sewing needle wrapped in paper. If the air be positively electrified, that end of a needle held nearest the inner coating of the jar will be found a north pole—if the air be negative, it will be a south pole.

(To be continued.)

DE OBFUSCATIONIBUS, OR A GLIMMERING LIGHT OF MESMERISM.

Col. ——, of the United States Army, has politely furnished us with a copy of the following work, entitled "De Obfuscationibus, or A Glimmering Light of Mesmerism;" drawn from documents known before Mesmer was born, in two letters, to a friend.

> **Strange dream! that gives a dead man leave to think.**
>
> *Romeo and Juliet.*

We cannot better introduce these valuable letters to our readers, which throw a flood of light upon the obsolete subject of witchcraft, than by calling the attention to facts, which are now forming the basis of a new and extraordinary science, by giving the preface to the work:

Preface—Reader—the title of this *important* work on Animal Magnetism was not devised until after the work was written, or rather copied,—for it is but a series of extracts from books already written,—and therefore, if the body of the work does not sustain the title—I mean the *classical* part of it—you will please to consider that the work is not responsible therefor, and you will accordingly bestow your dissatisfaction altogether upon the title; and yet not exactly on the title, seeing that I was obliged to have one. And the title in itself is a very good one, expressing but little or nothing of a subject about which but little or nothing is known.

Of course I am expected to assure you that these two letters were written exclusively for the satisfaction of a very ingenious and inquisitive friend, and not in the remotest degree with a view to publication; but you are mistaken, for I intended to print them as the most convenient and ready mode of multiplying copies for a few friends, for which purpose I have ordered them to press, together with this note, and have the honor to be,

Most respectfully, your very obd't. and humble serv't.,

to command,

* * *,

U. S. Army.

Fort Jesup, La.,
The Ides of March, 1845.

MESMERISM.

LETTER I.

Dear Sir:—You ask me for extracts from various books I happen to have supposed to have some tendency to prove Animal Magnetism or Mesmerism, and I have concluded to write them out; but before doing so I will explain that I am no convert, as yet, to mesmerism, though my doubts have begun to be shaken; in fact, one foot is off the ground and I expect soon to be *standing* upon my head, particularly if a certain experiment succeeds which I am desirous of having made on some clever clairvoyant. In right good earnest, I wish an experiment made of this nature: A mesmeriser, in communication with a clairvoyant, instead of addressing the latter in the usual language, is to use French or Latin, or some other language unknown to the clairvoyant, and see whether any and what answers will be made. If such an experiment has ever been made I have never heard of it; but from the pretensions of the science or art, it might seem that the clairvoyant, knowing the thoughts or mind of the mesmerizer, would answer questions so proposed as readily as if expressed in the vulgar tongue.

A successful experiment of this nature 'I am free to say' would actually turn me topsy turvy, and I would agree to see everything afterwards upside down, wrong side out, any way and every way except in a straight-forward old-fashioned way by the natural senses.

I am the more curious to see this experiment because it is a matter of history, that not many hundred years ago grave rules were established for the guidance of judicial investigations into accusations of magic and witchcraft, by which persons were said to be *possessed.*

It was the received opinion that persons might be *possessed* with spirits, both good and bad; and we may clearly infer that these opinions gained currency because the party affected or supposed to be *possessed* gave answers to questions which did not seem to proceed from their natural faculties, but they are represented as in *fits*, *trances*, *epilepsies*, &c. Now, in the rules prescribed, there was one that if a person, supposed to be possessed, made answer in the usual or current language, the possessing spirit was considered good or harmless, but if the answers were in Latin (the questions being in both cases proposed in Latin) the possession was deemed to be diabolical and judgment passed accordingly. This is a historical fact, and it is no very extravagant explanation to suppose that some species of phenomena, now recognized as mesmerism may have been at the bottom of it.

There have been many extraordinary men in the world whose career has been utterly inexplicable upon ordinary principles, and it is not impossible that no small number of men whose lives have puzzled the world were in some sort mesmerized people. Some of these people do not pretend to explain, themselves, their own condition, but refer all to some mysterious agency of which they can give no clear account, but generally speak of being surrounded with an extraordinary light and of living as if in a halo; sometimes it is an "obscure splendor," and then again "luminous" in the highest degree, giving without any agency of their own, a clearness of apprehension as to natural things not in the remotest degree to be obtained by what is commonly understood by our natural faculties. There have been too many of these men in the world to permit a supposition that all of them have, in so many different ages, determined to cheat the whole world on this point.

It is not improbable that our friend Jacob Behmen, and possibly Swedenborgh, and the Lord knows how many others, have been, so to say, self-mesmerized, and while existing in what may be called a seperate state may yet have retained so much ordinary consciousness as not to be put absolutely into a straight jacket—though I am a little inclined to take a different view of Swedenborgh's character, system and purposes. I have sent for Swedensborgh's Heavenly Arcana, and mean to know something about him in due time, induced principally by what is said of him by Rossetti in his Discourses on the Antipapal Spirit, Vol. II, p. 177. * * * * * *

Meanwhile, having at hand a brief life of Jacob Behmen, published with his works, I will just set down, that he was born in 1575, in Upper Lusatia; that being "thoroughly awakened in himself * * he was at last, as is his own expression, environed with a divine light for seven days together, and stood in the highest contemplation and kingdom of joys." After this, about the year 1600, * * he was a second time surrounded by the divine light, and replenished with heavenly knowledge; insomuch that going abroad into the fields, to a green before Ney's Gates at Gorlitts, he there sat down, and viewing the herbs and grass of the field, in his inward light, he saw into their essences, use, and properties, which was discovered to him by their lineaments, figures and signatures. In like manner did he behold the whole creation, and from that fountain of revelation wrote his book *De Signatura*

Rerum." In 1610, it is stated, that he was a third time taken into the light. In giving an account of some of his works, he says himself: "Art hath not written here, neither was there any time to consider how to set it punctually down, according to the right understanding of the letters, but all was ordered according to the direction of the spirit which often went in haste; so that in many words letters may be wanting, and in some places a capital letter for a word; so that the pensman's hand, by reason he was not accustomed to it, did often shake; and though I would have written in a more accurate, fair and plain manner, yet the reason was this, that the burning Fire did often force forward with speed, and the hand and pen must hasten directly after it, for it cometh and goeth as a sudden shower. And further he saith, I can write nothing of myself, but as a child which neither knoweth or understandeth anything, which neither hath ever been learnt, but only that which the Lord vouchsafeth to know in me according to the measure as himself manifests in me. For I never desired to know anything of the Divine Mystery, much less understood I the way to seek or find it, and I knew nothing of it, as it is the condition of poor Laymen in their simplicity. I sought only after the Heart of Jesus Christ, that I might hide myself therein from the wrathful anger of God, and the violent assaults of the Devil; and I besought the Lord earnestly for his Holy Spirit and Grace, that he would please to bless and guide me in him, and take that away from me which did turn me from him; and I resigned myself wholly to him, that I might not live to my own will, but his; and that He only might lead and direct me, to the end that I might be his child in his Son Jesus," &c.

I find that the celebrated Henry More (called the platonist) was one of a temperament similar to that of Jacob Behmen. He wrote among other things an exposition of the Apocalypse and says himself, speaking of his own spirit, that "his nag" while engaged in that work "was but overfree, and went even faster than he almost desired; but he thought it was the right way, and further—that all the time he was writing that piece, he seemed as it were to be in the air." I have More's Life by his friend Richard Ward, published in 1710, and find a multitude of passages that seem to have a distinct and palpable meaning on the supposition of his being under the influence of mesmerism, though he lived before Mesmer was born. The following passage occurs at page 42. "He was once for *Ten Days* together, NO WHERE (as he termed it) or in one continued fit of *contemplation:* During which, though he eat, drank, slept, went into the Hall (of instruction) and conversed, in a measure, as at other times; yet the thread of his contemplation for all that space was never once, as it were, *broken* or *interrupted*. And he hath been heard likewise unaffectedly to profess, that his thoughts would oftentimes be as clear as he could almost desire: and that he could take them off or fix them upon a subject in a manner as he pleased." Besides the passage above, the biographer says, page 134, "The Doctor hath seriously related, that from his infancy he hath this thing firmly all along imprinted in his mind; that lying one moonshining night in the cradle awake, he was taken up thence by a matron-like person, with a large Roman nose, saluted and deposited there again." This may have been only a dream. At p. 43, Ward says that "His very dreams were often regular; and he could study in them. And the constitution of his spirits was moreover such, if I may be allowed to mention it, that he could on design sometimes, by thinking upon distant external objects, bring them as to his view; and thus continue them or dissolve them for a time, at pleasure."

I mention this case of More in order to prepare the way for the more extraordinary account of the celebrated Cardan, born at Pavia in 1501. Bayle quotes from a work of his, written towards the close of his life, in which he says: "Nature has favored me with four endowments which I would never reveal, all of them, in my judgment, very extraordinary. Whereof the first is, that, whenever I please, I can transport myself out of my senses into an ecstacy. In the doing which I feel near my heart a sort of separation, as if my soul departed, and this affair is communicated to my whole body, as it were, by the opening of a door. The beginning of it is from my head, principally the cerebellum, and so diffuses itself all along the spine of my back, and is not stopped without great resistance; all I perceive is, that I am beside myself; and I can just contain myself a little with a certain considerable force. The second is, that I can at any time see whatever I please, with my eyes, not by force of imagination; (as those images I have mentioned my seeing when I was a child.) I can therefore see groves, animals, worlds, and whatever I please." Bayle states the other two peculiarities, not unlike the above, and then adds: "We must take notice, that *during these voluntary ecstacies, he felt not the most acute fits of the gout, and if any one spoke near him, he could hear a little the sound of the words, but understood not their signification.* For the rest, he would never boast of these four singularities; but at last this grand secret was too hard for him and so he revealed it to the public in one of his works."

A believer in Mesmerism in reading this account irresistably infers that Cardan had some power of self-magnetism, and hence his extraordinary vision and his insensibility to gout, as also his partial deafness for the time.

Henry More was a visionary platonist of the dreamy sort; some may consider this the cause, while others may regard it as the effect of his peculiar experiences. It is true that no one can give himself much to the spirit of many of Plato's Dialogues, as for instance the Phædo, the 7th Book of the Republic, the Banquet, and I know not how many others, and not imagine himself almost in another world than this where we eat three meals a day; and may soon come to regard the most of life as but a sort of living death. I confess I have a strong predilection that way, though I am sure there is too much of the real about me ever to suffer me to be much transported into the ideal. I hear my dinner signal even now, and am actually about to quit this subject and take care of my outward man. After dinner I intend to copy out for you a portion of the Witch Trial, about which I wrote you some days since. Poor Jane Brooks! only think of her being publicly executed, on the 26th of March, 1658, as a witch, for unconsciously, as I suppose, mesmerizing, on the 15th of November, 1657,, one Richard Jones, "then a sprightly youth about twelve years old, son of Henry Jones, of Shepton Mallett, in the county of Somerset."

And now for the Witch Story. You have seen, I believe, the book from which it is taken, but not the story itself. The author, Jos. Glanville, was a clergyman and chaplain to Charles the II. He was evidently a man of great cleverness, an ardent convert to the then new philosophy of Bacon as opposed to what was called the scholastic system, and wrote a very able defence of the Baconian and Newtonian discoveries, in which he shows himself intimately acquainted with both the Aristotelian and modern philosophy. He was also an able divine, as a valuable volume of sermons, published in 1681, bears testimony.

The sermons are all excellent; but one on Catholic Charity is remarkable, considering the age in which it was published. Some of the heads of the discourses are:

1st. That "Love is a part of religion; but opinions, for the sake of which we lose charity, are not so;"

2d. That "Charity is certainly our duty, but many of the opinions, about which we fall out, are uncertainly true;"

3d. That "Christian love is necessary, but agreement in opinions is neither necessary nor possible;"

4th. That "Errors, of themselves, are infirmities of the understanding, and not enormities of the will; for no man is willing to be deceived."

These truths, so familiar in this day, were new when uttered by Glanville, and I have noticed them to claim in his behalf, that his report of witch stories is entitled to a respectful consideration. It seems that Glanville was very earnest in his religious faith, and had an idea that a belief in subordinate spirits good and bad (especially bad) was in some manner necessary to a belief in the One Infinite and Eternal Spirit. He therefore determined to prove the existence of inferior spirits by adducing authenticated cases of trial and conviction for witchcraft. I have two editions of his work—the first entitled "A Blow at Modern Sadducism, in some philosophical considerations about Witchcraft, and the Relation of the famed disturbance at the house of M. Mompesson, with reflections on Drollery and Atheism; the fourth edition, corrected and enlarged. By Jos. Glanville, Fellow of the Royal Society, London, 1688." The other edition is entitled "Sadducismus Triumphatus: or, full and plain Evidence concerning Witches and Apparitions," &c., &c. "By Jos. Glanville, late Chaplain in Ordinary to his Majesty, and Fellow of the Royal Society, London, 1681."

In the Epistle Dedicatory, he says, "I appear thus much concerned for the justification of the belief of Witches, it suggesting palpable and current evidence of our immortality, which I am exceeding solicitous to have made good." And he further shows his sense of the importance of the subject, by saying that "he that thinks there is no witch, believes a devil gratis; or at least upon inducements, which he is like to find himself disposed to deny when he pleaseth. And when men are arrived to this degree of diffidence and infidelity, we are beholden to them if they believe either angel or spirit, resurrection of the body or immortality of souls."

Referring to the numerous cases of witchcraft, fully authenticated as he supposes, he says, "I think those that can believe all histories are romances; that all the wiser world have agreed together to juggle mankind into a common belief of *ungrounded fables;* that the sound senses of multitudes together may deceive them, and laws are built on *chyme-*

ras; that the gravest and wisest judges have been murderers, and the sagest persons fools or designing imposters; I say those that can believe this heap of absurdities, are either more credulous than those whose credulity they reprehend; or else have some extraordinary evidence of their persuason, viz: that 'tis absurd and impossible there should be a witch or apparition." I make these extracts merely to show that the writer was in earnest in what he was engaged in, and if it be supposed to indicate a bias, this, according to common argument, can only go to discredit his opinions, and can in no degree shake his claims on the score of veracity. It may provoke a smile indeed that a sensible man, even 200 years ago, could suppose a belief in witchcraft necessary to a belief in God and immortality; but his frankness and earnestness are respectable, and ought to give us confidence in his integrity.

[*Continued.*]

MAGNETISATION OF LIGHT.

Royal Society, Nov. 27.—The Marquis of Northampton, President, in the chair. Sir Frederick Thesiger was admitted as a Fellow.

Mr. Faraday's paper 'On the Magnetisation of Light and the Illumination of Magnetic Lines of Force,' was concluded. For a long time past, the author had felt a strong persuasion, derived from philosophical considerations, that, among the several powers of nature which, in their various forms of operation on matter, produce different classes of effects, there exists an intimate relation; that they are connected by a common origin, have a reciprocal dependence on one another, and are capable under certain conditions of being converted the one into the other. Already have electricity and magnetism afforded evidence of this mutual convertibility; and in extending his views to a wider sphere, the author became convinced that these powers must have relations with light also. Until lately, his endeavors to detect these relations were unsuccessful; but at length, on instituting a more searching interrogation of nature he arrived at the discovery recorded in the present paper, namely that a ray of light may be electrified and magnetised, and that lines of magnetic force may be rendered luminous. The fundamental experiment revealing this new and important fact, which establishes a link of connection between two great departments of nature, is the following: A ray of light issuing from an

Argand lamp is first polarised in the horizontal plane by reflection from a mirror, and then made to pass for a certain space, through glass composed of silicated borate of lead, on its emergence from which it is viewed through Nicholas'eyepiece, capable of revolving on a horizontal axis, so as to interrupt the ray, or allow it to be transmitted alternately in the different phases of its revolution. The glass through which the ray passes, and which the author terms the dimagnetic, is placed between the two poles of a powerful electro-magnet, arranged in such a position as that the line of magnetic force resulting from their combined action shall coincide with, or differ but little from the course of the ray in its passage through the glass. It was then found that if the eye-piece had been so turned as to render the ray invisible to the observer looking through the eye-piece before the electric current had been established, it becomes visible, whenever, by the completion of the circuit, the magnetic force is in operation, but instantly becomes again invisible on the cessation of that force by the interruption of the circuit. Further investigation showed that the magnetic action caused the plane of polarisation of the polarised ray to rotate, for the ray was again rendered visible by turning the eye-piece to a certain extent, and that the direction of the rotation impressed upon the ray, when the magnetic influence was issuing from the south pole and proceeding in the same direction as the polarised ray, was right-handed, or similar to that of the motion of the hands of a watch, as estimated by an observer at the eye-piece. The direction in which the rotation takes place will, of course, be reversed by reversing either the course of the ray or the poles of the magnet. Hence it follows that the polarised ray is made to rotate in the same direction as the currents of positive electricity are circulating, both in the helices composing the electro-magnet, and also as the hypothetical currents, which, according to Ampere's theory, circulate in the substance of the steel magnet.

The rotatory action was found to be always directly proportional to the intensity of the magnetic force, but not to that of the electric current; and also to be proportional to the length of that portion of the ray which receives the influence. The interposition of substances which occasion no disturbance of the magnetic forces, produced no change in these effects. Magnets consisting only of electric helices acted with less power than when armed with iron, and in which magnetic action was consequently more strongly developed. The author pursues the inquiry by varying in a great number of ways, the circumstances in which this newly discovered influence is exerted, and finds that the modification thus introduced in the results are all explicable by reference to the general laws above stated. Thus the effect is produced, though in a less degree, when the polarised ray is subjected to the action of an ordinary magnet instead of one that derives its power from a voltaic current, and it is also weaker when a single pole only is employed. It is on the other hand, increased by the addition of a hollow cylinder of iron placed within the helix, the polarised ray traversing its axis being then acted upon with great energy. Helices act with equal power in any part of the cylindric space which they enclose. The heavy glass used in these experiments was found to possess in itself no specific magneto-in-ductive action. Different media differ extremely in the degree in which they are capable of exerting the rotatory power over a polarised ray of light. It is a power which has no apparent relation to the other physical properties, whether chemical or mechanical, of these bodies; yet, however, it may differ in its degree, it is always the same in kind; the rotation it effects is invariably in one direction, dependent, however, on the direction of the ray and of the magnetic force. In this respect it differs essentially from the rotary power naturally possessed by many bodies, such as quartz, sugar, oil of turpentine, &c., which exhibit the phenomena of circular polarisation, for in some of these the rotation takes place to the right and others to the left. When, therefore, such substances are employed as dimagnetics, the natural and the superinduced powers tend to produce either the same or opposite rotations, and the resulting effects are modified according as they are cumulative in the former case and differential in the latter. In the concluding section of the paper the author enters into general considerations on the nature of the newly discovered power of electricity and magnetism over light, and remarks that all these powers possess in common a qualtiy of character which constitutes them a peculiar class, and afford an opening, which before was wanting, for the appliance of these powers to the investigation of this and other radient agencies. The phenomena thus brought to light confirm the views entertained by the author relative to the constitution of matter as being spheres of power, for the operation of which the conception of a solid nucleus is not necessary, and leads to the presumption that the influence of magnetism on bodies which exhibit no magnetic properties, consists in producing in them a state of electric tension tending to a current; while on iron, nickel, and other bodies susceptible of magnetism, currents are actually established by the same influence.

The author states that he is still engaged in the prosecution of these inquiries.—*Albion.*

* * *

MULLER'S PHYSIOLOGY:

Translated from the German, by Wm. Baly, M. D. (of Berlin,) and arranged from the second London edition, by John Bell, M. D.

This is an abridgement of a work which is spoken of by the American editor as "a vast repertory of facts and opinions in physiological science." . . . "And he who has gone over it without halt or pause, or indeed at all, may well speak as ever the indefatigable German student himself is said to do, of his having performed a feat." And, indeed, an ABRIDGEMENT which comprises a volume of 886 pages, presents a task which ought to afford a rich reward to him who performs it. Nor will the student who has toiled through the mass of scientific lore, find that he has labored in vain. If he have read understandingly, he will at the close possess many a pearl of true knowledge. Without pretending to have explored this mine of knowledge, we have yet found time to note here and there a passage, which may perhaps interest our readers, as showing the similarity of views on some very important points of one of the medical magi of the eastern world, and the falsely styled "quacks" of this western world; and the valuable evidence he continually gives against the popular medical theories and remedial agents.

Inflammation.—"Tiedeman remarks, that while an organ is in an excited state, the chemical changes in its substance go on more rapidly, and that it therefore, attracts more quickly, and in larger quantity, the blood, *which alone is able to render a part capable of increased vital action.* When, on the other hand, any organized part has suffered a lesion from change in its composition, *in that case also*, if the change in the organic matter has not been too great, *increased action ensues for the purpose of restoring the healthy state.* Organized beings have the power of preserving in all parts the composition necessary for the life of the whole. When the composition is disturbed, the *curative effect* of this power is manifested. This is a necessary consequence of the law that in organic bodies there is a constant striving to counteract chemical affinities. Hence the increased flow of blood to an injured part arises from the *organic action* in it being increased. The antagonism of the increased organic process, and of the commencing tendency to decomposition in the part is seen in inflammation. Inflammation is not essentially (merely) a state of increased action, *but is compounded of the phenomena of the local injury, a tendency to decomposition in the part, and increased vital action striving to balance the destructive tendency.* When the degree of change of composition in the animal tissues is greater, reaction does not ensue, and inflammation is not produced; such is the case in death by narcotic poisons. [Lobelia, for instance! Ed.] When inflammation does occur, the change produced by the injury may soon become so great that the organic reaction is not able to counterbalance it, and local death ensues." Pp. 155–6.

"The force which restores the balance in the composition of the tissues after such a disturbance, is identical with that which preserves all the properties of a part during the constant process of nutrition and renovation of material. The phenomenon which ensues on the restoration of the balance, is constituted partly by the change produced by the external cause, and partly by the effort exerted to restore the balance." p. 55.

This is good doctrine, and indicates the plan of cure with great plainness—not by drawing off the blood in which the organic force resides, nor by any unnatural depletion, nor by poisons which aggravate the "tendency to decomposition," and weaken "vital action;" but by vibratory motion, produced by the action of the *Magnetic forces* of nature, or the Magneto-Electrical Machine, and passed through the part effected. Means which aid the "organic process" of "reaction," remove the causes of "decomposition," and "restore the balance of the system.

The Blood.—"The action of the arterial blood is as necessary to life as the decomposition of burning matter is to the phenomenon of combustion." p. 56.

To take the blood then, is to take the life.

How Mercury Cures.—"Mercury, by inducing a slight change in the organic matter of the body, MAY render it unfit for propagating the destructive progress of syphilis; *and then the natural vital process, and not the mercury, effects the cure.*" p. 60.

Who can tell when he gives mercury, whether the change will be slight or not? "Who can control it when it has once taken the reins into its own destructive and ungovernable hands?" (Chapman.) But even should the change be slight, the benefit is but a possible and negative one. P. Thom.

MEDICAL INTELLIGENCE.—Our distinguished fellow citizen, Dr. J. R. Buchanan, who has lately been lecturing at Cincinnati, with great applause, has been elected to fill a chair in the Eclectic Medical Institute, of that city. Dr. B. has accepted the appointment and will enter upon his duties next fall, as Professor of Physiology, the Institutes of Medicine and Medical Jurisprudence. This is a new Medical School, which held its first session during the past winter with a very respectable class. Its Faculty consists of seven Professors and its prospects are said to be quite flattering.—*Louisville Democrat.*

THE DRUMMOND LIGHT.—It is often asked, by those who have witnessed the displays of the Drummond light in this city, why it is not used for lighting streets and public buildings? There are some practical difficulties in the way, not easy to get over. The formation of the oxygen and hydrogen gases is a troublesome and expensive process—then, to produce the light, they must be thrown in certain proportions and by seperate jets upon a piece of lime, burning at the point of juncture. The lime requires to be frequently renewed, and each burner requires constant attention. It is a very pretty light, but too complicated, and requiring too much nicety, for any ordinary purpose. Gas, properly made, and supplied at a reasonable profit, is probably the best—certainly the least troublesome—of artificial luminaries.—*N. Y. Atlas.*

A gentleman of Mayence, on the Rhine, is said to have discovered a mode of treating land, by which the most miserable soils, nay, arid sands, may be at once made to produce all the fruits of the earth abundantly.

Try—Keep Trying.—"I can't," has ruined many a man—has been the tomb of bright expectation and ardent hope. Let "I will try" be your motto in whatever you undertake, and if you press onward, you will steadily and surely accomplish your object, and come of victorious. Try—keep trying—and you are made for this world.

Electrical Phenomenon.—An account of human electricity was given in a number of Silliman's Journal some time ago, which might, if carried out, lead to some important conclusions in respect to human phenomena heretofore unexplained. The subject became so electric that sparks were drawn from and even spontaneously issued from the ends of her fingers. During this time an intense aurora borealis showed itself. The phenomena continued for several months, the sparks being readily given out whenever the lady approached any conductor of electricity. She could touch nothing metalic without emitting an electrical spark, which was an annoying circumstance to her. These appearances were proportionably heightened when the air was warm and the lady was in good spirits. During cold weather, and when she was in a melancholy mood, these phenomena were suspended. When sitting by a stove with her feet upon the metal edge, the sparks were drawn out at intervals of a few seconds, from three to six sparks per minute. The lady was about thirty years of age, of sedentary habits and rather sickly. She had suffered from rheumatic and neuralgic affections about two years prior to this time.

For the St. Louis Magnet.

I saw the beauteous stars arise,
And shed a light o'er land and sea;
Their dawn was made in brighter skies,
Than mortal eyes shall often see,
And presaged what their race should be.

I saw them high, and higher rise,
And watched their bright and sparkling train
With joyful heart, and tireless eyes,
'Till clouds, like some polluting stain
Came over them—they began to wane.

And oh, the gloom, that o'er them spread
Changing my joy, to inward pain,
To see their every beauty fled,
Proving the hopes, I cherished, vain
They set, but ne'er to rise again.

And thus these stars arose and set,
Whose brighter dawn, and dark decay
Have many a living symbol met,
Whose glorious morn, when merged in day
Have found a darker destiny, P. S.

THE

SAINT LOUIS MAGNET.

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ELECTRICAL THEORY OF HEALTH AND DISEASE, OR THE DUODYNAMIC PRACTICE OF MEDICINE.

[*Continued.*]

Having solved the problems of health and disease in the preceding number, we now proceed to the solution of a more difficult problem, (*ie.,*) how the healthy organ or body becomes diseased?

It will be recollected, that no organ or body, either organic or inorganic is created, or sustained independent of law. Every organ or body must be created in harmony with a fixed and immutable law, which, we agree to call the organic, because we perceive that *that* law governs organized bodies; or rather, we observe, that organized bodies are governed by a law, which we agree to call the organic, because organized bodies are governed by fixed and immutable principles, which we term law. As, for instance, we observe that the application of fire to the organic body invariably produces excess of heat, and consequently pain, and if carried too far, would produce death. The application of ice would produce excess of cold, and consequently pain, and, if carried to too great an extent, death. So of blood letting, if carried to a certain extent, syncope, and if carried too far, death is the invariable result. Hence, it will be perceived, that what we mean by the organic law is certain, fixed, and immutable principles, which govern organized bodies. We, of course, confine our remarks to the highest order of organized beings.

It will now be evident to the reader, that if the body composed of organs obeys the law which governs those organs, it cannot suffer any penalty. Therefore, neither pain, debility, nor any other form of disease would be known to organized beings. Disease, then, is a penalty attached to a violated law. The word law would be but an unmeaning term, without a penalty attached to the violation of its demands; in fact, without a penalty, it would be no law, neither in civil cases nor natural and divine.

But, this thing of violated law bringing on disease, is something the majority of the world does not comprehend. Shortly after we located in St. Louis, we took boarding with a respectable family, with whom a maiden lady resided. This lady* was in the habit of calling our attention very frequently to the many sufferings to which she was heir. Having become somewhat tired of listening to the repeated detail of her ailments which was but little more than *inui*, originating out of sedentary habits, we finally replied to her on one occasion, that the body was created and existed in harmony with immutable laws, the violation of which caused us much pain and suffering. That the best advice we could give her would be to study those laws and obey their mandates, and health and happiness would be the result. To this advice which was given in the best possible spirit, she replied: "I have violated the laws no more than you have. I guess I am as law abiding as some others who talk so much about law—I have never killed any body, nor robbed any body—neither have I cheated any body." We expostulated with her, observing that we did not refer to the civil law, but to the divine laws, or laws of nature. But this explanation did not serve to appease her wounded feelings, she became more indignant still, and observed: "I belong to church, I read my Bible, I study the Divine Laws, and I believe I am as obedient to them as most persons." Finding we could not disabuse her mind in respect to the correctness and kindness of our advice, and that she still remained indignant at the idea of being a *law breaker*, we changed our boarding house, and left the maiden lady to enjoy the misery or happiness of laws violated or obeyed, for the want of ability, or the right spirit to comprehend the true principle of law, health, and disease. Since that time, we have been particularly careful in conversing upon laws, and the necessity of their obedience in respect to health; especially before the unthinking and bigoted class of community. Pardon this digression, and we will return to our proposition.

We think we have clearly shown, that it is the violation of the law which governs organic bodies that causes them to become diseased. But the most interesting and valuable part of this proposition is to show how this law is violated, to bring on the various diseases which afflict the human body.

It will be understood, that every organ of the body, or faculty of the mind, was designed to be exercised in harmony with its peculiar functions, and to that degree which nature teaches us to be prudent. This prudence constitutes the organic law. Now, if an organ either of the body or mind, is not sufficiently exercised, this prudence or organic law is violated, and the organ becomes debilitated, and consequently diseased, and this debilitation or disease will be in proportion to the want of prudence or in proportion to the violation of the organic law. The same would be the fact, if an organ should be exercised too much. An organ may be rendered feeble and diseased by either cause. In the first instance, there is not a sufficient quantity of the nervous or magnetic fluid generated to produce health and strength; and in the second, the nervous or magnetic fluid, or more properly speaking *vital galvanism*, is expended, or thrown off faster by over exercise than it is generated by the natural processes of the body. *

For the want of room in this number, and time to do this problem justice at present, it will be concluded in the next.

* * *

ELECTRICITY.

[*Continued.*]

Before we can proceed with our experimental researches on Electricity, it is necessary to consider some of the fundamental laws by which the fluid appears to be governed; and first as to the difference perceptible when various bodies are subject to electrization. It will have been remarked that the experiments previously given refer only to particular substances, and were they attempted with other bodies, failure would be the result. Numerous failures of this description attended the labors of the first electricians, and early taught them that only certain substances were capable of being excited; these obtained the name of

ELECTRICS.

These, it was supposed, at first, were the only bodies which contained the electric fluid, because in them alone could it be made visible. This is a conclusion natural enough in the infancy of a science, but which in its advance was proved to be incorrect, for it is now known that all substances whatever, by taking proper precautions, can be excited, or made to exhibit electrical properties. Notwithstanding this, as totally different means must be adopted in each case, the characteristic term *electric* is still properly continued, and is intended to designate such bodies, as being rubbed, show for some time afterwards the effect of the fluid's disturbance. This is because electrics are of such a nature that the fluid is *not conducted silently away* over their surfaces, but rests there until some other better conducting body draws it off.

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* The natural processes, by means of which this *vital galvanism* is generated, will be considered in a separate article, under the caption of the electrical theory of the circulation of the blood.

Thus we divide all bodies into the two classes of *conductors* and *non-conductors; or electrics* and *non-electrics;* the former parting immediately with any fluid given to them, and the latter retaining it so as to be apparent to the senses. Thus air is an electric or non-conductor, were it not so, electrical experiments would be unknown, the fluid being dissipated as fast as it is accumulated; water, on the contrary, is a good conductor, hence the necessity of keeping the apparatus dry, that the disturbed fluid may be retained. Metals are the best couductors, therefore we use them for such parts of our electrical machines as are intended for the transit of the accumulated fluid. Glass and silk are electrics, or non-conductors, consequently are available as bodies to be excited, and as capable of preventing its escape and dispersion. Thus of an electrical machine the connexion between the cushion and the earth is a metalic chain or wire, to allow of the passage upwards of electricity, the glass cylinder being rubbed sets it free, the brass or tin conductor collects it, and its glass support *insulates* it, and thus prevents its escape to the earth again.

It will be evident from the foregoing remarks that a knowledge of the individual conducting powers of all substances is requisite to a right understanding of the first principles of the science, and that even the simplest experiments may be conducted with success. The following table presents a series of conductors and electrics, beginning with those which have the greatest conducting power, and terminating with those that have the least. The order in which they possess the power of insulating is of course the reverse of this; that is to say, the best or most perfect electrics are at the bottom of the table. It may also be observed that the middle of the table exhibits bodies almost neutral in their properties, being but very imperfect conductors, or very slight electrics:

The most perfect or least oxidable metals.
The most oxidable metals.
Charcoal—especially from hard wood.

Plumbago, or blacklead.
The mineral acids.
Metalic salts and oars.
Water, and other liquids; and snow.
Living vegetables and animals.
Smoke, soot, and steam.
Rarified air and flame.
Dry earths and stones.
Pulverized glass.
Flowers of sulphur.

Dry metalic oxydes.
Oils.
Vegetable and animal ashes.
Ice; when cooled down to 13° Fah.
Phosphorus.
Lime, dry chalk, and marble.
Caoutchouc, camphor, and bitumen.
Silicious and argillaceous stones.
Porcelain.
Baked wood.
Dry atmospheric air ond other gases.
White sugar and sugar candy.
Dry parchment and paper.
Cotton.
Feathers, hair, and silk.
Transparent gems.
Glass.
Fat.
Wax.
Sulphur.
Resins.
Amber and gum lac.

It will be seen from the above, that a particular substance may be an electric in one state and a conductor in another, thus glass and sulphur are both excellent electrics when in masses, but when pulverized become imperfect conductors. So green wood is a conductor; baked wood a non-conductor; baked still more into charcoal a conductor again; and when in the state of wood ashes a non-conductor once more. Many bodies also are conductors merely because they contain water; thus almost all highly-dried animal, vegetable, and mineral matters are non-conducting, as dried glue, parchment, bone, ivory, hair, feathers, horn, tortoise shell, wool, silk, gums, resins, wax, cotton, sugar, &c. &c. are electrics, yet as soon as either of them becomes damp, a conducting property is communicated, hence the necessity of well drying electrical apparatus when in use; and also the same fact shows the reason that machines of this kind act so imperfectly in damp weather, or in a room before a crowded audience, whose breath quickly settles in moisture upon the various electrics around. Too great heat also impairs the insulating effect of glass, &c., for although it will not, in ordinary temperatures suffer the fluid to pass along its surface, yet when heated to redness it becomes a good conductor; and so also is baked wood made very hot, melted resin, hot air, &c.

To discover if a body be an electric or not, hold it against the conductor of a machine when charged, if a spark can now be taken by the knuckle from another part of the conductor, the substance under examination is an electric, if not it is a conductor. If a liquid, a gas, or a powder is to be tried, inclose it in a glass tube; should the spark not now pass, it will be known to have been conveyed away by the liquid, &c., under trial.

[*To be Continued.*]

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The following article is extracted from a London publication entitled "The Popular Record of Modern Science." The book from which the extracts are taken is written by Professor Gregory, of Edinburgh, a gentleman held in high estimation for his Scientific acquirements, and a son of the celebrated Dr. Gregory.

RESEARCHES ON MAGNETISM.

A contribution to science, of far more than ordinary interest, has this week been furnished by Professor Gregory, of the University of Edinburgh, in a comprehensive statement of the researches of Baron Von Reichenbach on "Magnetism and certain allied subjects."* It appears that, while traveling on the continent last summer, Dr. Gregory's attention was attracted to a detail of Baron Von Reichenbach's experiments, just published in the "Annalen der Chemie und Pharmacie," a periodical of the highest rank, conducted by Baron Liebig and Professor

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*Abstract of "Researches on Magnetism and on certain allied subjects," including a supposed new imponderable. By Baron Von Reichenbach. Translated and abridged from the German, by William Gregory, M. D., F. R. S. E., M. R. I. A., Professor of Chemestry. Edinburgh, 1846.

Wohler. The conlusion to be derived from these experiments were of the most unexpected and startling character; but Dr. Gregory being aware of Reichenbach's character for minute accuracy and untiring perseverance, and of his reputation among chemists, in consequence of his laborious and successful researches on the tar of wood and of coal, which made us acquainted with creosote and many other new compounds, could not for one moment hesitate to receive the facts on which they rested. He felt anxious, therefore, on his return to Scotland in October last, that these experiments should be made known, and while preparing a translation of Reichenbach's statements, he took the opportunity of describing, in two leotures to a numerous audience, a considerable part of the results obtained. The fame of these lectures spread to London, and coming as it did at a time when discoveries by Faraday and Hunt had already excited the public mind upon the subject, the greatest interest was felt for further information. This information is now supplied, and it is of a character to awaken the liveliest gratification, as opening up a new and inexhaustable field for philosophical inquiry.

Baron Von Reichenbach's experiments originated in his having the opportunity of studying a patient, Madlle. Nowotny, aged 25, subject for eight years to increasing headaches, and latterly affected with cataleptic fits, accompanied with spasms. She possessed a remarkable acuteness of the senses, could not endure the daylight, and in a dark night perceived her room as well lighted as it appeared to others in the twilight, so that she could even distinguish colors.—She was also very sensitive in various ways to the influence of the Magnet. Struck with these things, and remembering that the aurora borealis appears to be a phenomenon connected with terrestrial Magnetism, or electro-magnetism it occured to him that possibly a patient of such acuteness of vision might see some luminous phenomenon about the magnet, Dr. Von Eisenstein (the physician in attendance?) afforded every facility, and experiments were accordingly commenced.

"The first trial was made by the patient's father. In profound darkness, a horse-shoe magnet of nine elements, capable of carrying eighty pounds, was presented to the patient, the armature being removed; she saw a distinct and continued luminous appearance, which uniformly disappeared when the armature was applied.

"The second experiment was made as follows, on her recovery from a cataleptie attack, when the excitability of her senses was greatest. The room being artificially darkened, and the candles extinguished before the fit was ended, the magnet was placed on a table, ten feet from the patient, with the pulse upwards, and the armature removed. None of the bystanders could see any thing whatever, but the patient saw two luminous objects, one at each pole, which disappeard on joining the poles, and re-appeared on removing the armature. At the moment of breaking contact, the light was somewhat stronger. The appearance was the same at both poles, without any apparent tendency to unite. Next to the metal she described a luminous vapor, surrounded by rays, which rays were in constant shooting motion, lengthening and shortening themselves incessantly, and presenting, as she said, a singularly beautiful appearance. There was no resemblance to an ordinary fire; the color of the light was nearly pure white, sometimes mixed with tridescent colors, the whole more like the light of the sun than that of a fire. The light was denser and brighter towards the middle of the edges of the ends of the magnet, than towards the corners, where the rays formed bundles, longer than the rest. I showed the patient a small electric spark; this, she said, was more blue, and left on the eye a painful and lasting sensation, like that caused by looking at the sun, when the image of the sun is afterwards seen on every object."

These experiments were repeated, sometimes with a weaker magnet, nothing being said to the patient, who then saw only two luminous threads; the first appearances, however, always returning when the original magnet was substituted. As she regained strength, her impressibility diminished. After some time, she saw nothing more than a kind of flash when the armature was removed, and eventually her recovery put an end to further experiments.

Dr. Leibig, clinical professor, now obtained for the Baron the means of experimenting with Madlle. Sturmann, a patient aged 19, suffering from consumption, and subject to the lower stages of somnambulism with attacks of spasms and catalepsy, and she proved still more sensitive than Madlle. Nowotny.

"When the magnet (capable of supporting eighty pounds) was placed six paces from the feet of the patient, (then in bed,) in the darkened ward and the armature removed; the patient then quite conscious, gave no answer, having instantly fallen into a state of spasm and unconsciousness. After an interval, she came to herself, and declared that the moment when the armature was withdrawn, she had seen fire rise from the magnet, which fire was the height of a small hand, white, but mixed with red and blue. She wished to examine it more closely, but the action of the magnet (the circuit being then not closed) instantly deprived her of consciousness. On account of her health, the experiment was not repeated."

A lad subject to frequent convulsions, was the person next experimented upon, and with somewhat similar results. The next was Madlle. Mair, aged 25, suffering from paralysis of the lower extremities, with occasional spasms, but exhibiting no other derangement of the nervous functions. As often as the armature was removed from a large magnet in the dark, she instantly saw the luminous appearance above the poles, about a hand breadth in height. Her sensitiveness increased when she was affected with spasms, and she then not only saw the light at the poles much larger than before, but she also perceived currents of lights proceeding from the whole external surface of the magnet, weaker than at the poles, but leaving in her eyes a dazzling impression which did not for a long time disappear.—This was the fourth confirmation of the existence of the magnetic light. The sensibility of the next patient was still more remarkable and distinct.

"This was Madlle. Barbara Reichel, aged twenty-nine, of stout built. At the age of seven, she had fallen out of a window two stories high, and since that time she had suffered nervous attacks, passing partly into lunacy, partly into somnambulism, and speaking in her sleep. Her disease was intermitting, often with very long intervals of health. At this time she had just passed through severe spasmodic attacks, and retained the entire sensitiveness of her vision, the acuteness of which was singularly exalted during her attacks. She was at the same time in full vigor, perfectly conscious, looked well externally, and went alone through the crowded streets of Vienna to visit her relations in their houses. The author invited her to his house, and she came as often as he wished it, so that he was enabled to employ her extraordinary sensitiveness to the magnetic influence, in researches with such apparatus as could not conveniently be brought into other houses.

"This person, although strong and healthy, saw the magnetic light as strong as any sick individual; she could move about freely, and was very intelligent, and in addition to these rare advantages, although highly sensitive, she could bear the approach of magnets, and experimenting with them, far better than sensitive persons generally do.

"This patient saw the magnetic light, not only in the dark, but also in such a twilight as permitted the author to distinguish objects, and to arrange and alter the experiments. The more intense the darkness, the brighter and larger she saw the flaming emanations, the more sharp and defined was their outline, and the more destinct the play of colors.

"When a magnet was laid before her in the dark, she saw it giving out light, not only when open, but also when the poles were joined by the armatures; but the luminous appearance was different in the two cases. With the closed magnets, there were no points where the light appeared concentrated, as was the case when the magnet was open; but all the edges, joinings, and corners of the magnet gave out short flame-like lights, uniform in size, and in a constant undulatory motion. In the case of the magnet of nine elements, capable of carrying eighty pounds, these were about as long as the thickness of a little finger.

"When the armature was removed, it presented a most beautiful appearance. Each arm of the magnet was about eight and a half inches long, and the light rose almost to an equal height above the magnet, being rather broader than the bar. At each depression, where two plates of the magnet are laid together, there appeared smaller flames ending in points like sparks, on the edges and corners. These small flames appeared blue; the chief light was white below, yellow higher up, then red, and green at the top. It was not motionless, but flickered, undulated, or contracted by starts, continually, with an appearance as of rays shooting forth. But here, as in the case of Madlle. Nowotny, there was no appearance of mutual attention, or mutual tendency towards each other of the flames, or from one pole to the other; and, as in that case, both poles presented the same appearance.

Experiments performed on a sixth patient, Madlle. Maria Atzmannsdorfer, aged twenty, who had headache and spasms, and walked in her sleep, led to results confirmatory of the preceding. The light dazzled her eyes by its brilliancy.*

"From the above facts it appears that the foregoing six sensitive individuals, each according to the degree of sensitiveness or to the diseased state of the body, saw, more or less vividly, a luminous appearance, like a moving flame, at the poles of powerful magnets. These individuals were highly sensitive, although of unequal sensitiveness; and, although unacquainted with each other, and with each other's observations, their accounts agree in all essential points, and were, in each case, uniformly consistent, not only with themselves, but with the known laws

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Dr. Gregory's pamphlet contains well executed lithographic representations of the appearances of the various flames and streams of light, from drawings made by the patients.

of electricity and magnetism. The author, having no reason to doubt the perfect honesty of those persons, and feeling, at all events, confident of his own caution, accuracy, and *bona fides*, has no hesitation in admitting the reality of the phenomenon, although invisible to ordinary men; and he considers the fact of the existence of such luminous appearances at the poles of powerful magnets as fully established as the researches of one man can establish a fact. He confidently anticipates confirmation from other observers, since sensitive persons, although not numerous, or readily found in small towns, are quite easily obtained in large cities.

But in order to prove that the impressions upon these persons were the result of actual light, Baron Von Reichenbach instituted the following experiment:—

"A very sensitive Daguerreotype plate, being prepaired, was placed opposite to a magnet, the armature of which was removed, in a closed box, surrounded with thick bed-clothes, so that no ordinary light could enter. After sixty-four hours' exposure, the plate when held over mercurial vapor, was found fully affected, as by light, on the whole surface. In a parallel experiment, made without a magnet, the plate was found entirely unaffected. This proves that, unless other imponderables, such as magnetism, act on the prepared plates as light does, the emanation from the magnet is of the nature of light, however feeble and slow in its action on the Daguerreotype."

This beautiful and satisfactory experiment was followed by another equally remarkable. By means of a lens, the magnet was made to produce a focal image on the wall, and wherever the experimenter moved the lens, Madlle. Reichel was able to point to the situation of the light.

Thus much with regard to the luminous appearances. We now come to the mechanical force exerted by the magnet on the human frame. Dr. Patelin, of Lyons, and other observers, having formerly stated instances of the attraction of the human hand by a magnet, and of the power of some patients to distinguish water, along which a magnet had been drawn, resolved to institute experiments in this direction.

The adhession of a living hand to a magnet is a fact unknown in physiology as in physics, and a few have seen it; it therefore requires explanation. Madlle. N. being in catalepsy, insensible and motionless, but free from spasms, a horse-shoe magnet of twenty pounds power was brought near to her hand, when the hand attached itself so to the magnet, that which ever way the magnet was moved, the hand followed it as if it had been a bit of iron adhering to it. She remained insensible; but the attraction was so powerful, that when the magnet was removed, in the direction of the feet, further than the arm could reach, she, still insensible, raised herself in bed, and with the hand followed the magnet as far as she possibly could, so that it looked as if she had been seized by the hand, and that member dragged towards the feet. If the magnet was still further removed, she let it go unwillingly, but remained fixed in her actual position. This was daily seen by the author between six and eight P. M., when her attacks come on, in the presence of eight or ten persons, medical and scientific men.

"At other periods of the day, when she was quite conscious, the phenomena were the same. She described the sensation as an irresistable attraction, which she felt compelled, against her will, to obey. The sensation was agreeable, accompanied with a gentle cooling aura, streaming or flowing down from the magnet to the hand, which felt as if tied and drawn with a thousand fine threads to the magnet. She was not acquainted with any similar sensation in ordinary life; it was indescribable, and included an infinitely refreshing and pleasurable sensation, when the magnet was not too strong."

Similar results were obtained with Mademoiselle Reichel, and Madlle. Sturmann, and the statement of the various modes in which the veracity of the patients, and the accuracy of the experiments were tested, is such as to inspire the most unreserved confidence in the experimenter. Mr. Baumgartner, the distinguished natural philosopher, was one of those who, amongst others, tested in a very ingenious way the above phenomena.

With regard to magnetised water, Baron Von Reichenbach, although strongly prejudiced against this "mesmeric idea," was compelled to admit that a palpable effect was produced.

"He saw daily, that his patient could easily distinguish a glass of water, along which a magnet, unknown to her, had been drawn, from any others; and this without failure or hesitation. He found it impossible to oppose a fact like this by arguments: but when he saw the same result in many other patients, he ceased to struggle against that which, whether he understood it or not, was obviously the fact. He then perceived that it was more rational to admit the fact, and to wait with patience for the explanation."

The experimenter then determined to see, whether other bodies besides water could be magnetized, so as to produce similar effects. He passed the magnet not only over all sorts of minerals and drugs, but over indiscriminate objects, and they all effected the patient more or less powerfully. But although all were equally magnetised, the results were different, some substances producing a strong, and others only a slight impression. It was therefore clear, that the different results must have been caused by an inherent difference of power in the various kinds of matter, and heresolved to test, if this difference would manifest itself, when the substances were applied in their natural condition. To his astonishment they still acted on the patient, and with a power often little inferior to that which they had when magnetised.

Amongst the various substances tried, (of which a well arranged list is given) distinct solitary crystals were found to act in the strongest manner.

"In trying the effect of drawing the point of a rock crystal, 7 inches long and 1 3-4 thick, from the wrist to the points of the fingers, and back, in magnetising, the author found that the sensation experienced by the patient was the same as when a magnetic needle or bar, nearly five inches long, one sixth inch broad, and one-thirtieth inch thick, weighing nearly 180 grains, and supporting about 3-4 oz. The patient felt an agreeable cool aura in both cases, when the crystle or magnet was drawn from the wrist, to the point of the middle finger; if drawn in the opposite direction the sensation was disagreeable and appeard warm. A crystal, thrice the size of the first, produced, when drawn downwards, the same effect as a magnet, supporting two pounds of iron; and when drawn the opposite way, a spasmodic condition of the whole arm, lasting several minutes, and so violent that the experiment could not well be repeated."

It was found that this peculiar force residing in crystals was analogous to electricity and magnetism, inasmuch as it was capable of acting through opaque bodies, and admitted also of being transferred to other substances. A large rock crystal, placed so that its point rested on a glass of water, produced water as strongly magnetised as a horse-shoe magnet. It was further ascertained that the power thus transferred, was capable of being retained for a short time, (in no case, however, longer than for ten minutes.)

In Madlle. Nowotny, the hand was attracted by a large crystal, exactly as by a magnet of middling size. Crystals also gave forth the same luminous appearance as the magnet, only more singularly beautiful in color and form.

Still proceeding steadily in his researches, and calling to mind the many effects analogous to those of the magnet alleged to have been produced on sick persons by the human hand, Reichenbach, while he avoided all study of the literature of animal magnetism, in order to retain an unfettered judgement, resolved to ascertain "whether animal magnetism, like the crystaline force, might not be subject to physical laws? the crystalisation seems to mark the transition from organic to inorganic nature, he ventured to hope, that by experiment he might discover a point of connection between animal magnetism and physics, or perhaps even obtain, for animal magnetism, that firm foundation in physics, which had so long been sought for in vain."

And here the philosophical caution of the practised observer is strikingly displayed. In order that his experiments might be free from every disturbing cause, he felt it essential, previously, to ascertain the part which terrestrial magnetism plays in relation to human sensations. If a magnet or crystal produces marked effects, it is certain that the magnetism of the earth must exert a powerful action, and, therefore, it became necessary for him to ascertain the conditions of this action, to enable him to estimate the degree in which the results of the new experiments might be modified by its influence. The inquiries instituted with this view, led to the discovery of a singular fact, namely, that persons sensitive to the magnetic influence, (at least, in the northern hemisphere,) find, when in a recumbant state, every other position except that from north to south highly disagreeable, that from west to east being, in particular, almost intolerable.

"On examining the position of Madlle. Nowotny, she was found lying almost exactly on the magnetic meredian, her head towards the north. She had instinctively chosen this direction; and it had been necessary to take down a stove, to allow her bed to be placed as she desired it to be. She was requested, as an experiment, to lie down with her head to the south. It took several days to persuade her to do so, and she only consented in consideration of the weight which the author attached to the experiment. At last, one morning, he found her in the desired position, which she had assumed very shortly before. She very soon began to complain of discomfort, she became restless, flushed, her pulse became more frequent and fuller, a rush of blood to the head increased the headache, and the sensation of nausea soon attacked the stomach. The bed with the patient was now turned, but was stopped half way when she lay in a magnetic parallel, with the head to the west. This position was far more disagreeable than the former, indeed, absolutely intolerable. This was at half past eleven, A. M. She felt as if she would soon faint, and begged to be removed out of this position. This was done, and as soon as she was restored to the original position, with the head to the north, all disagreeable sensations diminished, and in a few minutes were so completely gone, that she was again cheerful."

Further singular corroborations are quoted in confirmation of this view; and Reichenbach thinks it sufficient to account for many of the errors and contradictions which have occurred in animal magnetism from the time of Theophrastus and Mesmer to our own day. "For if the same disease were treated magnetically, in Vienna, in the position north to south; in Berlin, in that of east to west; and in Stuttgard, in that of south to north; totally different results would be obtained in the three cases, and no agreement in the experience of the different physicians could be obtained."

"Nay, if the same physician, at different times, or even at the same time in different places, were to treat the same disease with the same magnetic means, while accidentally the beds of his patients were placed indifferent positions, he must necessarily see quite different results, so as to be entirely puzzled with magnetism and with himself. He must conclude it to be full of caprice and change; and finding it impossible to foresee and regulate its action, reject magnetism altogether as an unmanageable instrument. Such has been, in fact, the sad history of magnenetism. From the earliest times, often taken up, and as often cast aside, it now lies almost unimployed, and yet is so distinguished, so penetrating, nay, we may say, so incomparable a means of relief in cases where man has hitherto been unable to afford any benefit. Nervous diseases are still the *scandala medicorum*.—It may be confidently expected, that ere long an improvement will be effected. The all-powerful influence of terrestrial magnetism will be measured and calculated, and the whole subject of magnetism will now admit of being regularly studied in reference to medicine. Progress will be made, experimenters will mutually understand each other; and the world may at length hope to derive some actual benefit from those extraordinary things which have so long excited expectation without satisfying it. Having thus established the existence of a powerful influence exerted by the earth's magnetism on the magnetic phenomena in sensitive persons, all subsequent magnetic experiments were made with the patients in the position from north to south, which is considered by the author as the normal position for the living body, sensitive or affected with nervous maladies."

The experiments then instituted resulted in convincing Reichenbach that a similar force that which he had detected in the magnet, and other bodies, resides in the human hand.

The most singular experiment is that with a glass of water.

"If it be grasped from below by the fingers of one hand, and from above by those of the other, during a few minutes it has now acquired to the sensitive, the taste, smell, and all other singular and surprising properties of the so-called magnetised water. 'Against this statement,' says the author, 'all those may cry out who have never investigated the matter, and to the number of whom I formerly belonged: but to the fact all those who have submitted to the labor of investigation, and have seen the effects I allude to, can only speak with amazement.' This water which is quite identical with that treated with the magnet or with the crystal, in all its essential properties, has, therefore, received from the fingers and hand an abundant charge of the peculiar force residing in them, and retains this charge for some time, and with some force. It was found that all substances whatever were capable of receiving this charge, which the sensitive patients invariably detected. The inevitable conclusion is, that the influence residing in the human hand may be collected in other bodies, in the same way, and the same extent, as the influence residing in crystals."

But in ascertaining thus much we have not arrived at all the sources of this force. Some of Reichenbach's most interesting and striking researches go to establish in the most unquestionable manner, that it resides also in the rays of the sun, and the moon, and the stars; that it developed likewise the chemical action (especially in the processes of digestion and respiration,) and again by electricity. These are its ascertained and peculiar sources; but it seems from the experiments subsequently detailed by Reichenbach, that there is scarcely an object in the collective material world through which it may not be manifested in relation to peculiar idiosyncracies.

Towards his concluding remarks, the author gives some very interesting statements of the relative development of the magnetic force in individuals, at special periods of the four and twenty hours, and he suggests many applications of these facts of great practical value in the preservation of health. He promises, also, within two months, to publish the results of the extended inquiries.

On the whole, it is scarcely too much to assert, that a more interesting series of observations in relation to physical science has rarely been presented to the world. Those who will take the trouble to enter into the statements, of which little more than an outline has been presented, will meet with suggestions sufficient to give direction to a whole life-time of thought and observation. The phenomena observed and narrated bear with equal force upon every branch of inquiry—chrystallography, mineralogy, geology, botany, anatomy, physiology, medicine, astronomy; in short, the whole circle of the sciences. It opens up a field of inquiry to which every student of Nature must direct his steps, and to which all, no matter how varied their pursuits, may bring their labor with a certainty of reward.

In conclusion, it is proper to mention that one very gratifying circumstance, in connexion with the publication of these researches, consists in there having drawn forth the admirable remarks of Professor Gregory, by which the publication of them is accompanied. It is also matter of congratulation that, in a letter, dated from Vienna the 7th of the present month, published in the appendix, and addressed by Baron Von Reichenbach to Professor Gregory, the following paragraph is to be found:

"Berzelius has expressed himself in the same way as you have done; and carries on with me a friendly and brisk correspondence on the subject of my researches, on which we may shortly expect a report from him, to be laid before the Swedish Academy of sciences."

(This sustains the philosophy which we set forth in our views on the philosophy of Clairvoyance, page 78 of the first volume of the St. Louis Magnet.)

[*From the Cincinnati Daily Times.*]

LETTER OF DR. BUCHANAN.

LOUISVILLE, KY., March 25, 1846.

Gents:—The statement of your official action and personal wishes which has been communicated to me by your Secretary, has been duly received and considered.

Having become somewhat acquainted with the character and principles of the Eclectic Medical Institute during the past winter, and having learned that it is, as its name indicates, designed to embody the spirit of Eclecticism, instead of that of Ultraism—and the spirit of Progress instead of Conservatism. I accept, without hesitation, the honorable appointment, which you have tendered.

Such an institution is demanded by the general spirit of the times, which requires that medical science should partake far more than it has heretofore of the progressive tendencies of the age. The *juste milieu* of steady progress without exclusive and partial systematizing—and of thorough reformation without anarchy or destruction, constitutes, as I understand, the characteristic feature of the Eclectic Medical Institute.

To the Eclectic School belong many of the active and untrammeled minds of the profession. Those who feel the ardent impulse of original hought, and whose minds are invigorated by the careful observation of Nature, cannot easily be confined within the pale of any exclusive and necessarily imperfect system. But men of this temperament of mind are often carried away by the force of their own conceptions, and become unable to divert their minds from some one important idea with which they have been deeply impressed. Thus neglecting to regard with equal care ideas and principles no less important than the one by which they have been dazzled, they become exclusive, partial or ultra in their views, and originate those plausible systems, the popularity of which is maintained for a time by the valuable truth which has been embodied and made, perhaps, too prominent.

Against these partial systems, the votaries of conservatism display an overbearing opposition. Regarding nothing as true which has not been sanctioned by numbers and by time, they persecute in one generation the doctrines which, in the next, they honor. Yet there are minds which are equally free from the errors of ultraism, and from the stubborn blindness of conservatism. Those who carefully think and observe for themselves, yet who are not unduly fascinated by any particular truth which their own observations may have developed, or by any demonstrable theory which their own reason may have framed—who readily accede to a new truth when brought within their reach, yet who do not set aside all previous researches and opinions to make room for any additional facts or principles, pursue the most philosophical course. Enabled by the expansive liberality of their minds to appreciate the harmonious relations of all species of truth, they learn with equal facility and pleasure from every accessible source—whether it be ancient, modern or recent—whether it demand observation, reason or experimental inquiry. Thus guided in the pursuit of knowledge by no partizan feeling or passion, and retaining the clear-sightedness which distinguishes a portion of truth, even when mingled with error—such individuals are ever in possession of a greater amount of valuable truth, and a smaller amount of error, than their contemporaries. These are the true Eclectics of science, and I feel assured that the spirit of rational Eclecticism which now animates the minds of many is destined ultimately to take possession of the entire scientific world, and eradicate the partial, contracted views of ultraism and conservatism which belong to an earlier stage of progress—to a lower grade of development of the human mind.

The spirit of Eclecticism has at present an ample field of usefulness in medical science. Those who shall succeed in extracting the truth from its various discordant systems which now exist, adding thereto such new facts and principles as will give to the science a philosophical completeness, will be regarded hereafter as among the greatest benefactors of humanity. To accomplish this it would be necessary—first, to take a critical survey of our existing knowledge—and, secondly, to supply the great deficiencies, which at present are acknowledged to exist.

The greatest deficiences are: first, as to the vital laws and moving powers of the human frame: secondly, as to the relations of the constitution and its diseases to external agents, and to medicines in particular.

We must obtain a thorough knowledge of the vital powers of the nervous matter, and especially of that commanding organ, the brain, before we can be said to have a philosophical knowledge of man. The existing ignorance of the functions of the brain is one of the chief causes of the present empirical features of medical science; it certainly leaves a great blank in our physiology, and until it is supplied, that science cannot be considered either philosophical or satisfactory. For the last ten years my labors have been directed to overcome this great obstacle to medical improvement, and the success of my neurological researches in developing the functions of the brain and the general philosophy of the human constitution, has roused in the minds of many an ardent hope of witnessing the commencement of a new era in medical science.

As to the relations of the human constitution to external objects, and especially to medicines, the experimental enquiries which I have already made, have satisfied me that a vast deal is yet to be learned in this department, and I fully agree with some of the best medical writers, in believing that the greatest improvements in the *practice of medicine* must come from a careful investigation of the relations of medicines to the human constitution, and from the discovery of important remedies for disease which have not yet been used. I have the pleasure of believing that a peculiar systematic experimental investigation of the materia medica (by a novel method) which I have commenced, bids fair, if carried out, to accomplish as much for the enlargement and correction of our materia medica and therapeutics, as the knowledge of the cerebral functions will accomplish for the improvement of physiology.

In this department of medical knowledge, I believe that the Eclectic Medical Institute has made decided progress, and has adopted principles, which my own experimental inquiries sustain. In assuming a connexion with that institution, I shall be urged to carry on these experimental inquiries to the attainment of important practical results.

The urgent necessity for experimental research has not yet been removed by the vast accumulations of medical learning. No philosophic mind can look upon medical science as it is—upon the blank and profitless deportment of the science which constitutes its present Neurology, or upon its confused and extremely defective materia medica, without feeling that a partial acquiescence in such defects would be a gross neglect of duty in the medical profession. Such, if I mistake not, are the views of the Faculty of the Eclectic Medical Institute, and to co-operate in carrying out these principles of medical reform and progress, I shall cheerfully lend my assistance in occupying the chair which you have assigned me, and endeavoring to render the Institutes of Medicine an exact and valuable department of the Science.

With great respect, I remain Your humble servant,

JOS. R. BUCHANAN.

To the Hon. Board of Trustees of the Eclectic Medical Institute.

We are highly gratified at this judicious choice of the Eclectic School. It is a decided triumph in reform—of truth over long established error. Dr. Buchanan is a gentleman of dignity and great force of character, and probably none have pried deeper into Anthropological science. We have listened to him on this subject with the most profound interest. He is pleasing, interesting, and highly instructive in his lectures. All, who wish to keep pace with the march, of the science of man—physically and mentally—will most certainly avail themselves of his ticket.

* * *

DE OBFUSCATIONIBUS.

[*Continued.*]

Let it be borne in mind that no accounts of misunderstood phenomena ever come to us without a mixture of fable, more particularly where these accounts come through popular report, and especially when they pass through minds disposed to regard them with mysterious awe and fear. Stories of witchcraft, it must be expected therefore, will be dressed up with all sorts of popular exaggerations and misapprehensions, so that in adjusting them into any kind of consistency great allowances must be made. In the present case, the simple argument is this: That, if in any authenticated account of witchcraft, facts are detailed exactly corresponding with the phenomena of Mesmerism, as now known and practiced at will, the inference is direct in favor of the Mesmeric theory as explanatory of these facts, even though other facts should be embraced not to be explained by any theory whatever. I shall give you one entire case, as reported by Glanville, who says he had it from Mr. Hunt, one of the two justices who sat in judgment upon the case, and whose certificate is annexed to it. But before doing so, I will just state some of the facts in Mesmerism as I have seen them myself: A doctor (W. for instance) seats himself before a young man, F. and after some five minutes, or thereabouts, of passes by the hands of Dr. W. over the head and arms of F. the latter falls, or seems to fall, into a sound sleep. F. has not only fallen asleep, but has become perfectly rigid, so that no one can bend "either of his arms or legs;" (this latter phenomenon is not, I believe, always an attendant of the Mesmeric sleep, but is sometimes exhibited independently of the sleep; F. was rigid and asleep, when I saw him, during more than two hours.) *The doctor having mesmerised his subject, rises and is then the only person in communication with him. F. answers all his questions, but is as if deaf to all other persons, and utterly insensible to efforts to inflict pain upon him, while he is sensible to everything which affects the doctor either physically or mentally.* Now the witchcraft story reads thus:

"On Sunday, 15th of November, 1657, about three of the clock in the afternoon, Richard Jones, then a sprightly youth about twelve years old, son of Henry Jones of Shepton Mallet, in the county of Somerset, being in his father's house alone, and perceiving some one looking in at the windows, went to the door, where one Jane Brooks of the same town (but then by name unknown to this boy) came to him. She desired him to give her a piece of close bread, and gave him an apple. After which *she also stroked him down on the right side, shook him by the hand, and so bid him good night.*" [I must here remark that I have italicised the last passage, because it is just here that a mesmeriser might say, from the facts that follow, that the boy was brought under the influence of Jane Brooks. The account proceeds as follows: "The youth returned into the house, where he had been left well, when his father and one Gibson went from him; but at their return, which was within an hour or thereabout, they found him ill and complaining of his right side, in which the pain continued the most part of that night. And on Monday following, in the evening, the boy roasted the apple he had of

Jane Brooks, and having eaten about half of it, was extremely ill, and sometimes *speechless*, but being recovered, he told his father that a woman of the town on the Sunday before had given him that apple, and that she stroked him on the side. He said he knew not her name, but should her person, if he saw her. Upon this Jones was advised to invite the women of Shepton to come to his house upon the occasion of his son's illness, and the child told him, that in case the woman should come in when he was in his *Fit*, if he were not able to *speak*, he would give him an intimation by a jogg, and desired that his father would then lead him through the room, for he said he would put his hand upon her if she were there." [I remark here that the expression *Fit* as used above, is, at page 169 in another case, used synonimously with *Trance;* so the boy was subject to *trances.* A mesmeriser might see that the boy was in a state of what is called sleep-waking.] "After this, he continuing very ill, many women came daily to see him. And Jane Brooks the Sunday after came in with two of her sisters, when several other women of the neighborhood were there."

"Upon her coming in, the boy was taken so ill that for some time *he could not see nor speak;* but having recovered his sight, he gave his father the *Item*, and he led him about the room. The boy drew towards Jane Brooks, who was behind her two sisters among the other women, and put his hand upon her, which his father perceiving, immediately scratched her face and drew blood from her. The youth then presently cried out that he was well, and so continued seven or eight days; but then meeting with Alice Coward, sister to Jane Brooks, who passing by said to him, (How do you, my Honey?) he presently fell ill again. And after that the said Coward and Brooks often *appeared* to him: *The boy would describe the clothes and habit they were in at the time exactly, as the constable and others have found upon repairing to them, though Brooks' house was at a good distance from Jones'.* This they often tried and always found the boy right in his descriptions." [In the latter part of the above passage the mesmerizers might *clearly* see that the boy was a *clairvoyant*, and also in the following passage.]

"On a certain Sunday about noon, the child being in a room with his father and one Gibson, and in his *fit*, he on the sudden called out that he saw Jane Brooks on the wall, and pointed to the place, where immediately Gibson struck with a knife; upon which the boy cried out (O, Father, Coz. Gibson hath cut Jane Brooks' hand, and 'tis bloody.) The father and Gibson immediately repaired to the constable, a discreet person, and acquainting him with what had passed, desired him to go with them to Jane Brooks' house, which he did. They found her sitting in her room on a stool, with one hand over the other. The constable asked her how she did? She answered, *not well.* He asked again why she sat with one hand over the other? She replied, *she was wont to do so.* He enquired if anything were amiss with her hand? Her answer was, *it was well enough.* The constable desired that he might see the hand that was under; which, she being unwilling to show him, he drew out and found it bloody, according to what the boy had said. Being asked how it came so? she said, I was scratched with a great pin." [It is very important to note here that thus far the account is but the report of the magistrates upon the testimony of others. The next portion is a report from personal knowledge, and this is the important part of the relation. What precedes is but a kind of prelude. I will italicise the passages which make more directly for the mesmeriser, though they will be sufficiently plain to those at all acquainted with the modern mysteries of animal magnetism.

" On the 8th of December, 1657, the Boy, Jane Brooks, and Alice Coward, appeared at Castle Cary, before the Justices, *M. Hunt* and *M. Cary.* The Boy having begun to give his testimony, *upon the coming in of the two women, and their looking on him, was instantly taken speechless,* and so remained until the women were removed out of the room, and then in a short time, upon examination, he gave a full relation of the mentioned particulars.

[*Continued.*]

* * *

Surgical Operation.—On Friday last, Dr. Bostwick removed a tumor, weighing ten ounces, from under the left shoulder of a colored girl, named Emeline Brown, aged 33, while she was in a mesmeric state. The girl was totally unconscious upon her waking up that the operation had been performed. Several medical gentlemen and persons belonging to the press were present.—[*N. Y. Atlas.*

For the St. Louis Magnet.

"These are thy Glorious Works, Parent of Good."—Milton.

My fancy stood the centre of a Sphere,
That Sphere, the Universe beheld as one.
A thousand planets, as they first appeared,
Have swelled to millions, each a central sun,
Forming the chain of systems that compose
A kingdom which, from Deity arose.

These are thy heavens, God, boundless—sublime—
Its rolling systems subject to thy laws,
Perfect their order—thou hast fixed the climes;
The change of seasons—years—the night and day—
The laws of order, beautiful and just,
Thyself revealing and inspiring trust.

Each shining planet perfect and supreme,
Within the limit though assign'dst its play,
Vies with its neighbor, which shall brighter shine,
While all revolving, each in its own train
Reveal to scienced minds one glorious whole—
An empire, infinite, and God the soul.

I asked the varied worlds around on high,
Then asked the commet, hastening in its cause,
Who formed your systems? who controlls the whole?
What power invisible? what latent force,
Retains all matter in its order just;
Warms into life, and action, nature's rest?

It is the soul of Nature thus arrayed,
The animating spark which warms the whole,
Replenishing the new from the decayed,
Causing the earth to bloom, and oceans roll;
Who breathing on thine ashes, life began—
Yet 'ere thyself desirest will pass away.

M.

We have received two valuable articles—one from Mr. E. R. Metcalf; the other from James Magehan. These will appear in the next number.

THE

SAINT LOUIS MAGNET.

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ELECTRICAL THEORY OF HEALTH AND DISEASE, OR THE DUODYNAMIC PRACTICE OF MEDICINE.

(*Continued from page 27.*)

It will now be readily conceded that disease of whatever description it may be, whether physical or mental, accute or chronic, hereditary or otherwise, is an effect, which has been produced by some cause or causes. All we have to do, in completing our solution of this problem, is to enquire into the causes which produce disease.

We showed in our preceding researches on this subject: that organized bodies exist, and enjoy life in harmony with the law which governs organized beings, which we please to call the organic. This law requires that the organized body, shall "be temperate in all things"—that every organ which composes the body, shall be exercised to a reasonable extent, which would give it a healthy action. Should any organ of the body, even the least, be exercised too little, the organic law would be violated, and the body would suffer in proportion to the violation; or should any organ of the body be exercised too much, the organic law would be violated, and the body would suffer in proportion to the violation of the law.

The organic law demands, that we shall eat to live—to grow and thrive—It is the natural means by which the wasting of the body is replenished and health and vigor mantained; but, at the same time, it punishes us for eating too much.

Man is endowed with reason, for the purpose of judging of the quantity and quality of food upon which he should live. But, *passion* and not judgment is exercised in respect to satiating the appetite; and hence the thousands of ills, which are produced by the abuse of the organ of alimentiveness. What a host of diseases are caused and entailed upon the human family, by the abuse of this organ alone?—eating and drinking to excess: This is one cause among the many, which produces the evil effects of which we complain.

Again, in order that we shall have a sufficiency to eat and drink, to preserve life and make us comfortable, the physical law demands that we shall labor; which also serves to exercise the body and mind—invigorating both, and thereby producing health. Exercise is as necessary to health and longevity, as eating is to the relpenishing, the wasting of the body, and the support of life. But, this law is too frequently violated by over working, and hence the punishment attached, disease, in proportion to the violation, and if carried too far, premature death is the result. On the other hand, if too little exercise is taken, the system becomes relaxed and feeble, and disease is the consequence.

The law of procreation, demands, "that we multiply and replenish" our species, and a prudent exercise of the organ of amitiveness, is conducive to health. But the abuse of this organ either for the want of use, or the too frequent exercise of it, has produced ruinous effects on almost every human system. The legitimate exercise of the principles here referred to constitute the greatest amount of our happiness; yet, in their abuses, they are the most fruitful sources of disease and misery. Hence, we find that those things, which are most essential to our existence and our happiness—productive of the greatest amount of good, are the most liable to abuse.

We might refer to every individual organ of the mind or brain, and show the same results, but this would only be interesting to those, who delight in prying into the complex character of diseases originating out of such a complexity of causes. The mind and body are so intimately connected that one cannot be injured to any extent, without the other suffering more or less with it.

Any deficiency in the brain produces deficiency in the mind, and any deficiency in mind produces its corresponding deficiency in the body. The brain governs the whole, physically and mentally; and just in proportion as the brain is perfectly developed in every direction from the capital or top of the spinal marrow, called the *medulla oblongata*; will be the perfection of the physical and mental operations of the individual. A full development of the posterior base and superior occipital portions of the brain, comprising all that portion lying posterior to a line drawn perpendicular from the external opening of the ear, to the anterior portion of firmness, gives a fine physical development. A person thus organized would possess a fine constitution, and consequently capable of resisting disease to a very great extent; although, his intellectual and moral faculties might be very deficient, which would lead him to be constantly violating the laws of his nature. These violations would in time ruin his constitution and disease would be the result. From observation in practice, we have found that patients possessing this configuration of head are more easily restored to health, than those who possess highly moral and intellectual heads, with deficient basolar and occipital brains. Hence, we discover that disease is produced in any organ, by the violation of the law which governs that organ.

All excesses in eating, drinking, sleeping, laboring, &c., or the want of regular exercise of the whole, or any one individually, serves to produce derangement—it weakens that part of the system upon which the abuse falls, and disease is the consequence. This solves our third proposition.

RAPIDITY OF LIGHTNING.

The incalculable rapidity with which the electric fluid passes from one place to another, not only as seen in our comparatively trivial apparatus, but so much more forcibly in the wilder phenomena of lightning, is so evident as to have become of general notoriety, and a powerful simile. Shocks have been passed through wires many miles in extent, without any appreciable time being taken up by its passage. Regiments of soldiers have been electrified at the same moment. The fluid has even been passsed instantaneously through very long channels of water, although water conducts it with 400 millions of times less rapidity than iron, and this metal twenty times slower than copper. Miss Somerville in her far-famed work, "The connexion of the Physical Sciences," records as follows the experiments of Professor Wheatstone to ascertain, if possible, the velocity of the electric fluid in its passage from one body to another.

"The velocity of electricity is so great, that the most rapid motion which can be produced by art, appears to be actual rest when compared with it. A wheel revolving with celerity sufficient to render its spokes invisible, when illuminated by a flash of lightning, is seen for an instant with all its spokes distinct, as if it were in a state of absolute repose; because, however rapid the rotation may be, the light has come and already ceased before the wheel has had time to turn through a sensible space."

"This beautiful experiment is due to Professor Wheatstone, as well as the following variation of it, which is not less striking.—Since a sun-beam consists of a mixture of blue, yellow, and red light, if a circular piece of pasteboard be divided into three sectors, one of which is painted blue, another yellow, and the third red, it will appear to be white when revolving quickly, because of the rapidity with which the impressions of the colors succeed each other on the retina. But the instant it is illuminated by an electric spark, it seems to stand still, and each color is as distinct as if it were at rest. This transcendent speed of the electric fluid has been ingeniously measured by Professor Wheatstone; and although his experiments are not far enough advanced to enable him to state its absolute celerity, he has ascertained that it much surpasses the velocity of light.

"An insulated copper wire, half a mile long, is so disposed, that its centre and two extremities terminate in the horizontal diameter of a small disc, or circular plate of metal, fixed on the wall of a darkened room. When an electric spark is sent through the wire, it is seen at the three points apparently at the same instant. At the distance of about ten feet, a small revolving mirror is placed so as to reflect these three sparks during its revolution. From the extreme velocity of the electricity, it is clear, that if the three sparks be simultaneous, they will be reflected, and will vanish before the mirror has sensibly changed its position, however rapid its rotation may be, and they will be seen in a straight line. But if the three sparks be not simultaneously transmitted to the disc—if one, for example, be later than the other two—the mirror will have time to revolve through an indefinitely small are in the interval between the reflection of the two sparks and the single one. However, the only indication of this small motion of the mirror will be, that the single spark will not be reflected in the same straight line with the other two, but a little above or below it, for the reflection of all three will still be apparently simultaneous, the time intervening being much too short to be appreciated.

"Since the distance of the revolving mirror from the disc, and the number of revolutions which it makes in a second, are known, the deviation of the reflection of the single spark from the reflection of the other two can be computed, and consequently the time elapsed between their consecutive reflections can be ascertained. And as the length of that part of the wire through which the electricity has passed is given, its velocity may be found.

"Since the number of pulses in a second, requisite to produce a musical note of any pitch is known, the number of revolutions accomplished by the mirror in a given time is determined from the musical note produced by a tooth or peg in its axis of rotation striking against a cord, or from the notes of a siren attached to the axis. It was thus that Professor Wheatstone found the velocity of the mirror to be such, that an angular deviation of 250 in the appearance of the two sparks would indicate an interval not exceeding the millionth of a second. The use of sound as a measure of velocity is a happy illustration of the connexion of the physical sciences."

(To the Editor of the St. Louis Magnet.)

WHITEHALL, ILL., MAY 30, 1846.

Sir—by the request of H. S. Fitch Esq., I write you on the subject contained in your note to him of the 16th ult. The subject or science of animal magnetism, is one to my mind of vital importance. It is a truth as susceptible of clear demonstration as any great truth ever presented to the human family; and notwithstanding this, there are many who oppose it. Nor should we wonder at this when we recollect that no important truth has ever been presented to the world without strong opposition. It has not been two years since animal magnetism was first introduced into our village by Dr. Underhill. At that time the subject was new to me, and I had in common with my fellow citizens, the usual objections to all such mysterious things. I thought, however the subject worthy of a candid and impartial investigation; though I must confess the Doctor left me rather sceptical. After his lectures closed there were some of my neighbors in connexion with myself, who concluded, that we should unite for its mutual examination. So we appointed a place for our first meeting, and on the first, I succeeded in magnetising a Miss Church, daughter of one of my intimate friends. This encouraged us to go ahead, and we soon found several that were very susceptible. After this we began to think of seeing what we could do in Clairvoyance. The first thing I attempted in that, was to me truly interesting, I willed the young lady whom I had thrown into the clairvoyant state, to be at my wifes fathers in Cass County, Illinois. After waiting a few moments I asked if she was there, she replied in the affirmative, I then asked her if she saw my wifes father, when she replied she did; I asked what he was doing, she said he was sitting in the kitchen doing nothing; I asked her how he looked, and she described him as well as I could have done myself, although she never has seen him. At this time she made a deep sigh and seemed inclined to weep; I asked her why she did so, and inquired of her if any thing had happened since I was last there; she answered that Lucy one of my wifes sisters was dead; and in a few days we received a letter confirming it. This of course interested and astonished me, and of course still induced me to persevere and see what we could do, the more fully to develop the truths, which I began to think it capable of unfolding.

Some interest seemed to be taken in the subject, and many began to be anxious to witness our experiments; among others Mr. S. H. Culver, Methodist minister now at Alton; and who was rather opposed to believing all the pretentions of magnetism; came over one evening to witness a private examination; and make some tests of the thing himself. So after I had magnetised Miss Church and thrown her into the clairvoyant state, Mr. Culver proposed to propound through me some questions for the clairvoyant to answer. He first asked how many letters his family had received from their friends in New Hampshire, in one year; she answered two, he said that was true; he then asked who of his family got the last letter; she replied Ann, his daughter, this he said was the fact; next he asked, who the letter was from, whether a man or woman, she answered from a young woman; then he asked what the girls name was from whom she had the letter; she immediately gave her christian name, but to give her maiden name seemed in some way to be difficult for her to give, though it confirmed Mr. Culver in the belief that a great deal of useful information might be derived from its proper use. She also described the girl as well as he could have done himself, and also the kind of a house in which her father lived, with great precision. We then willed her to be in your city, St. Louis, when she described the St. Louis Exchange as minutely as any person who was well acquainted with it could possibly have done, although she has never seen it. About the time we were experimenting in this way, Dr. Taff was taken violently ill; after remaining so for some time his lady came up to my house and said she was in search of a doctor and wished me to go down and see what was best to be done for him; I accordingly went and found him in truly a very bad state; congestion to the brain and lungs with great prostration of the physical powers, and too far gone to prescribe for himself with any certainty; we commenced and by a proper course of treatment partially relieved him for the time. I was apprehensive however, that a similar attack might take place on the succeeding day, and I determined in my own mind, that if it should, I would test the clairvoyant in an examination of his case. As I had apprehended, the next day the disease made its appearance at the time we were looking for it, I then told his lady what were my intentions, and notwithstanding she is a strong believer in magnetism, she smiled at what I supposed she considered my fanatacism. I sent and had Miss Church brought, her father also came, and there were several other persons present; among the rest Mr. Wallace, our methodist minister in this place, who considers magnetism the works of the devil, and those who practice it his prime ministers. I put Miss Church into the clairvoyant state, examined the doctors case most minutely and scientifically, then asked if she could give a prescription which would be likely to relieve the doctor, she said she could. She then gave the prescription in a beautiful style. It was given and he recovered with great rapidity, and was restored to perfect health in a very short time.

Her prescription was purely botanic, which is to my mind strong proof against the common practice of giving that to a sick person, which would, if given to the well, kill them. I would give you many other interesting cases, though my space will not permit. Yours,

E. R. METCALF.

This is an interesting letter, containing facts of great value, to the afflicted, and also to the physician. It is well worthy the consideration of the skeptical part of community. We should be pleased to have all who take an interest in advancing truth, for the welfare of the human family, report us those interesting facts which go to strengthen the claims of a new and interesting, but much abused science, which comes within the reach of their observation. This course would soon place this invaluable science upon a foundation which would bid defiance to snarling demagogues, who oppose every thing which is not confined within the narrow limits of their own understanding.

St. Louis, May 9th, 1846.

Dr. T. J. McNair:

Dear Sir:—I feel it my duty to you, to the science of Magnetism or Mesmerism, and suffering humanity, to present you with the facts, in respect to my case, which you have lately had under treatment for publication, should it meet your approbation.

My case, with which you are well acquainted, you will recollect, was *Bronchitis*, and that when I first called upon you, the disease had so far advanced as to almost entirely destroy my voice. In the early part of the year 1843, I caught a severe cold, which terminated in *Asthma;* from that time until last fall I have been subject at all times, but more particularly in damp weather to severe paroxysms and difficulty of breathing and continued delicate health, which rendered me scarcely able to pursue my business. I continued to seek a remedy, having consulted and taken the prescriptions of some of the most eminent physicians of this city, all of which had the effect to increase my suffering. Finding no help, I resorted to the use of some of the *cure-all* patent medicines of the day, and having given them a trial without success, I last fall called upon an eminent surgeon of this city who operated upon me for an elongation of the *uvula*, and for two or three weeks afforded temporary relief, but my disease again returned, and in a few weeks become so severe, that I could get no rest at night; my Bronchial tubes being so much effected that my voice was gradually leaving me, when I called upon you in March last. In a few days after you first applied your Magnetic Machine, my voice began to improve, and my rest at night got better. I have gradually improved under your treatment, until now my voice is entirely restored—my disease is gone—and I regard myself as permanently cured.

I would take this occasion to caution the public, so far as my experience may be relied on, against the use of Patent Medicines for diseases of the lungs, all these medicines I have used have done me injury. I would also state that I believe your system of treatment of diseases is likely to be abused, and "Magnetic Remedies" brought in bad repute by Magnetic Machines falling into the hands of unskilful persons, or those unacquainted with Human Anatomy, such a result for the sake of suffering humanity, I should deeply regret.

I am, with due respect, yours, truly,

JAMES MAGEHAN.

The Magnetic Machine, together with Mesmerism, has invariably proved successful in our hands, in every case of derangement of the lungs, where the disease had not produced organic or structural derangement to such an extent as to render a return to health impossible. In all cases of consumption, we have very little confidence in any other remedial agent. All who try this agent experience immediate relief, and we are confident there are few—very few who may not be cured.

* * *

LEBANON, OHIO, May 23d, 1846.

DR. MCNAIR—*Dear Sir:* I have received the first volume of the St. Louis Magnet entire, with which I am much pleased. You have favored me with the first number of the second volume before I forwarded you the subscription. I am pleased to have your confidence. I here enclose you one dollar for the second volume, and when it closes, if you send me the first number of the third volume before I forward the amount, it shall be forthcoming, and shortly after its reception. I am highly pleased with the work, and expect to patronize it as long as it sustains its present character.

Yours, respectfully,
JOSEPH C. HAFFIELD.

We publish this letter because it is common sense, and common honesty—the *rarest* sense and honesty with which earth is blest.

We have furnished the St. Louis Magnet to a great number, from its first commencement, who have not thought the confidence we have placed in them worth the *dollar*, nor the Magnet either, as neither have been paid for. We still have unbounded confidence, however, that all who receive the St. Louis Magnet will *fork over* in due time!!!

It would be folly for us to praise *the* work, when its bitterest enemies are free to admit, that it contains more original matter and useful philosophy than any work of its size published.

In looking over a contemporary Medical Journal of this city, we were forcibly struck with the amount of editorial matter which it contained, and for the especial benefit of our liberal readers, we copy the article entire:

☞ "The Editors of the Journal would again very respectfully solicit the subscribers, who have not paid, to forward the amount of subscription as soon as practicable. A LARGE MAJORITY HAVE NEVER PAID A CENT; and as the publisher requires prompt payment, it devolves upon the Editors to sustain the Journal, to no inconsiderable extent, by their own means. We trust that all will see the propriety of immediate compliance."

Our subscribers do not require such editorials as this; consequently we have time and room for articles on science calculated to interest and instruct their minds.

We gave a short statement of this operation in our last number, but not having room for the particulars at that time, we now take a pleasure in copying the article entire from the New York Beacon.

MESMERISM.

In the infancy of this subject we gave it our support, as far as we could; that is, to the extent of our own experiene. This is the limit we thought should be stopped at; but some in their zeal swallowed all the miracles on the subject, which they were afterwards unable to sustain, and thus injured the cause; others condemned the whole as humbug, without proper scrutiny, and thus exposed themselves, and offered impediments to science; for such it will become. In the pursuit of philosophy, these two errors greatly impede progress; a too ready belief subjects the parties to impostors, and one impostor imposes the necessity of producing a tenfold quantity of facts; while an absolute scepticism, in the face of the wonders of nature, is almost absurd, for nothing is more wonderful than Nature's operations, of which we know only a very small part, and *nothing* of first causes. We believe that Mesmerism will powerfully aid our researches into Nature, and doubtless serve to enlighten us. What we now want is, *numerous undisputed facts*, from which to draw the principles of Nature; for Mesmerism is only one of her properties. The following from the Herald, must, we think, be indisputable: *besides*, we know personally the respectability of several of the parties present.

G. V.

[Published for preservation.]

Surgical Operation on a Mesmeric Patient.—We, in company with a number of other persons, were yesterday witness to a surgical operation performed on a patient while in the mesmeric state, which, to say the least, entirely puzzled us. The patient was a colored servant girl, named Emeline Brown, about 33 years of age, who had been living in the family of the Rev. Dr. Higbee. She had been for some time past afflicted with a large tumor upon her back, immediately under the left shoulder blade, and had tried various remedies to cure it. She at last concluded to have it cut out, and for that purpose called on Dr. Homer Bostwick, of No. 75 Chambers-street. Dr. Bostwick, who has always been sceptical upon the subject of magnetism, thought this might be a good case to test it, and called upon Dr. Oltz, a magnetic practitioner living near him. Dr. Oltz, after seeing the girl, expressed perfect confidence in his power to put her in the magnetic sleep, so that the operation could be performed without the patient's experiencing any pain. Dr. Oltz commenced magnetizing her, and succeeded in putting her asleep; the first time in half an hour. Between that time and the operation, (some few days) he had magnetized her five times. Dr. Oltz assisted by Dr. E. J. Pike, commenced in the usual manner to magnetize her about half past 3, and by 4 o'clock the girl was sound asleep, and apparently insensible. Dr. Oltz now said the patient was ready, and left the room, leaving Dr. Pike holding the hand of the girl, with one hand upon her forehead. The girl, before being magnetised, was sitting in a chair with her head lying forward upon a pillow on a table. The upper part of the dress was removed. and Dr. Bostwick prepared to commence. He first made a longitudinal incision, eight inches in length, through the flesh over the tumor, and then cut round it. When the knife was first put in, we were watching the face of the girl closely, expecting to see her start and hear her scream; but there was not the least motion. She lay as still and motionless as a marble statue. Not a quivering of the lip or of the eye-lid could we observe. Dr. Bostwick, assisted by Dr. Childs and Dr. Stearns, continued cutting away upon the tumor, and in three minutes it was taken out, there being, during the whole time, no motion on the part of the girl.

During the whole operation, Dr. Pike sat with his hand upon the patient's head. Several physicians examined the pulse, and said it was apparently in a natural state. Dr. Bostwick then, with a large darning needle, sewed up the incision, there still being no motion of muscle or nerve on the part of the patient. After placing adhesive plaster upon the incision, and bandaging it, Dr. Oltz was called in to wake up the girl. This he did by making passes over her face; and upon waking she was told that the operation had not been performed, and that she must now have it done.' This was done to see whether she would know anything about it. "Well" she said "she was sorry, but she wanted it taken out." "Do you feel no pain?" asked Dr. Bostwick. "None," said the girl. "Have you felt none?" "None" was the answer again. She was then shown the tumor, and seemed to be very glad to see it out: It was an adipose tumor, and weighed 10 ounces; We then left the house extremely puzzled. The persons present who witnessed the operation were Dr. Homer Bostwick, Dr. John Stearns, Dr. Samuel R. Childs, Dr. Eleazer Parmly, Dr. Sherwood; Dr. E. J. Pike; W. H. Stinemets, E. L. Fancher, M. Hart, Oliver Johnson, John R. Van Vleit and Edward Gould Buffum. The time from which the operation was first commenced, till she was awakened, was just thirty minutes.

* * *

SWEDENBORG'S ANIMAL KINGDOM—PRINCIPLES OF MOTION.

We shall commence in our next number a series of articles from the Translator's Introduction to Swedenborg's "Animal Kingdom,' believing we cannot better interest our readers in the important subject of Anthropological Science, than by thus calling their attention to one of the profoundest writers, who has ever been recognized in the scientific world.

This introduction by the translator, a medical scholar of distinction, probably gives a better synoptical and analytical view of the whole of this wonderful work, than could be presented by any one, less thoroughly acquainted with the great value of its contents.

This is a work which connects the past science of ages with the present, and the present with the future. It is one of the great connecting links in science, which seems to have been prepared long before the series closed for which this link was designed, to unite that series to the next. Showing how bountiful *Nature* is in performing her part in the drama of progression. More than a century has rolled round since the work was ready to take its place in the scientific world; but alas! the scientific world was not prepared to receive it. The preceding series had not been wound off, of the great ball of motion, by one hundred years. And, therefore, it lay in store, ready to unite two great sycles in science, when the proper time arrived for the fulfilment of its mission.

Believing from the present symptoms—the pulse of Nature, that *that* time has arrived, we unhesitatingly set about presenting our readers with a synoptical view of this beautiful link in nature's progression.

We subjoin an extract from the work itself:

" It is a truth constantly presented to us as the result of all our analytic investigations, that every action of the cerebrum and cerebellum is determined through the fibres; and that the fibres cannot be determined into act, excepting by their beginnings or principles; in short by the organs that are prefixed to the fibres. The latter must certainly be excited to motion by their principles, and commence and describe their motions in this way. It is absurd to suppose that any action can begin in the middle of a fibre, and not in its first terminus. If, then, it begins in the first organs, it must inevitably begin in the cortical glands; for the fibres commence, and are conceived and produced, in those glands, and the arterial vessels of the cerebrum terminate also in them. Hence, if the principles of motion exist in them, according to all physical and philosophical laws, as mutually confirmed by and confirming each other, those principles must necessarily commence by a kind of active, living, or locomotive reciprocal force, that is, by a kind of expansion and constriction, or systole and diastole, such as we observe in a gross form in the lungs and heart; for the same conditions are involved, whether the spirit is to be driven through the fibres, or the blood through the vessels. The blood cannot be driven through its arteries without the reciproca- expansion and constriction of the heart; nor can the spirit be driven through the fibres, which are little canals and vessels analogous to the arteries, only more pure, without the reciprocal expansion and constriction of the cortical glands of the cerebrum, which on this account deserve the appellation of pure corcula, or little hearts. Assuming or granting these points, the necessary consequence is, that every time the cortical and cineriterous substance of the cerebrum, cerebellum, medulla oblongata, and medulla spinalis, contracts or constringes itself, the whole mass of those parts sinks down, and undergoes systole; but, on the other hand, undergoes diastole, when the same substance, I mean the whole congeries, expands. This is the animation of the cerebrum—using the term cerebrum in its widest acceptation—that corresponds to the respiration of the lungs. We must now proceed a step farther. If the animal or nervous spirit, at the intervals of the constriction of these organic substances—of the little hearts of the cerebrum—is expressed by the cerebrum through the nerves and nervous fibres, of course it is expressed by the cerebellum into its grand sympathetic nerves, the par vagum and the intercostals: and granting this, it follows that these nerves act during the same intervals upon the fibers of the pulmonary plexus, and upon the fibers of the costal nerves; which connot fail on the instant to act upon their muscles and membranes: nor the latter to act upon the ribs, and this upon the internal structure of the lungs. Hence, it follows that the animations of the cerebrum (using the term here again in its widest sense) must necessarily be coincident with the respiration of the lungs; and the fact is still more plainly declared by the influx of the fibres of the above-mentioned cerebellar nerves, the par vagum, and the intercostal, into all the viscera of the abodmen; and by the motion of those viscera agreeing exactly, and keeping perfect time, with the respiratory motions of the lungs, as proved in detail in our Analysis."—*Animal Kingdom*, vol. ii., pp. 158-9.

Each convolution of the brain or phrenological organ, is divided into equal halves, by a very thin nurilema, on the opposite sides of which the different, or diverging and converging fibres are attached. Swedenborg, a hundred years ago, called the convolutions of the brain, organs, cortical glands, and corcula, or little hearts. He was also familiar with the fact, that motion is produced by the action of two forces. Wonder how many hundred years it will require to beat this knowledge into the heads of the professors of our medical colleges!

DE OBFUSCATIONIBUS.

[*Continued.*]

"On the 11th of January following, the boy was again examined before the same Justices at Shepton Mallet, and upon sight of Jane Brooks was again taken speechless, but was not so after when Alias Coward came into the room to him.

"On the next appearance at Shepton, which was on the 17th of February, there were present many gentlemen, ministers and others; *the Boy fell into his fit upon the sight of Jane Brooks, and lay in a man's arms like a dead person; the woman was then willed to lay her hand on* *him, which she did, and he thereupon started and sprang out in a very strange and unusual manner.* One of the Justices to prevent all possibilities of Legerdemain, caused Gibson and the rest to stand off from the boy, *and then the Justice himself held him. The youth being blindfolded,* the Justice called as if Brooks should touch him, but winked to others to do it, which two or three successively did, *but the boy appeared not concerned.* The Justice then called on the father to take him, but had privately before desired Mr. Geoffry Strode to bring *Jane Brooks* to touch him, at such time as he should call for his father; which was done, *and the boy immediately sprang out after a very odd and violent fashion.* He was after touched by several persons and *moved not;* but *Jane Brooks* being caused to put her hand upon him, *he started and sprang out twice or thrice, as before. All this while he remained in his fit, and some time after;* and being then laid on a bed in the same room, *the people present could not for a long time bow either of his arms or legs.*" [Here is the proper close of the authenticated facts as ascertained by the two magistrates, in the actual presence of "many gentlemen, ministers and others;" and it is upon this portion of the story that a mesmerizer might claim that a judgment ought to be founded. What follows is given in order that the whole story may be told, and though very marvellous, it ought not to be regarded as a discredit to the facts certified as witnessed by the magistrates themselves.

"Between the mentioned 15th of November and the 11th of January the two women *appeared* often to the boy, their hands cold, their eyes staring, and their lips and cheeks looking pale. In this manner on a Thursday about noon, the boy being newly laid into his bed, Jane Brooks and Alice Coward appeared to him, and told him that what they had begun, they could not perform, but if he would say no more of it, they would give him money, *and so put a two-pence into his pocket.* After which they took him out of his bed, laid him on the ground, and vanished; and the boy was found by those that came next into the room lying on the floor, as if he had been dead. The *two-pence* was seen by many, and *when it was put into the fire, and hot, the boy would fall ill;* but as soon as it was taken out, and cold, he would be again as well as before. This was seen and observed by a minister, a discreet person, *when the boy was in one room and the two-pence (without his knowledge) put into the fire in another;* and this was divers times tried in the presence of several persons.

"Between the 8th of December and 17th of February in the year mentioned, divers persons at sundry times heard in the boy a noise like the croaking of a Toad, and a voice within him saying Jane Brooks, Alice Coward, twelve times in near a quarter of an hour. At the same time some held a candle before the boy's face and earnestly looked on him, but could not perceive the least motion of his tongue, teeth or lips, while the voice was heard.

On the 25th of February between two and three in the afternoon, the boy being at the house of Richard Isles at Shepton Mallet, went out of the room into the garden; Isles' wife followed him, and was within two yards when she saw him rise up from the ground before her, and so mounted higher and higher, till he passed in the air over the garden wall, and was carried so above ground more than 30 yards, falling at last at one Jordan's door at Shepton, where he was found as dead for a time. But coming to himself told Jordan that Jane Brooks had taken him up by the arm out of Isles' garden, and carried him in the air as related.

"The boy at several other times was gone on the sudden, and upon search after him found in another room as dead, and at sometimes strangely hanging above ground, his hands being flat against a great beam in the top of the room, and all his body two or three feet from ground. There he hath hung a quarter of on hour together; and being afterwards come to himself, he told those that found him that Jane Brooks had carried him to that place and held him there. Nine people at a time saw the boy so strangely hanging by the beam.

From the 15th of November to the 10th of March following, he was by reason of his fits much wasted in his body, and unspirited; but after that time, being the day the two women were sent to Gaol, he had no more of those fits.

"Jane Brooks was condemned and executed at Charde Assizes, March 26th, 1658.

"This is the sum of M. Hunts narrative, which concludes with both the Justices' attestation, thus:—'The aforesaid passages were some of them seen by us, and the rest, and some other remarkable ones not here set down, were, upon examination of several credible witnesses, taken upon oath before us.

(Signed,) ROBERT HUNT.
(Signed,) JOHN CARY.

Upon the conclusion of this relation Mr. Glanville remarks:—"This is good evidence, I think, of the being of witches; if the sadducee be not satisfied with it, I would fain know what kind of proof he would expect. Here is the testimony of sense, the oaths of several credible attesters, the nice and deliberate scrutiny of quick-sighted and judicous examiners, and the judgment of an Assize upon the whole. And now the security of our lives and fortunes depends upon no greater circumstances of evidence than these. If such proof may not be credited, no fact can be prooved, no wickedness can be punished, no right can be determined; Law is at end, and blind justice cannot tell how to decide anything."

This account is from the edition of 1681, and Mr. Glanville proceeds with other witch stories, most of wich are derived, as he states, directly from the magistrate Mr. Hunt.

We are accustomed in this age to think of witchcraft as something ludicrous, and forget that our ancestors, not very far removed, regarded it as an awful verity, while many poor creatures, and those mostly females, fell victims to the delusion, the common mode of execution being that of the stake. It is singular that it seems not to have occured to any one engaged in the examination of the case of Jane Brooks, that there was a moral impossibility in her consciously and voluntarily exercising diabolical powers in the very presence of the magistrates assembled to decide upon her guilt.

"The next case recited by Glanville is that of one "Elizabeth Style, widow." The affidavits in this case are all reported at length, and run through many pages, there being several of them, agreeing in three main particulars with each other. The first witness is Rich. Hill, examined January 23, 1664, who swears that his daughter Eliz. Hill, 13 years old, has "*fits* which have held her an hour, two, three and more," in which the girl said that "one Elizabeth Style of the same parish *appeared* to her, and is the person that torments her. *She also in her fits usually tells what clothes Eliz. Style has on at the time*, which the informant and others have *seen and found to be true*." This may pass for clairvoyance.

Another witness swears that "in her fits the child's strength was increased beyond the proportion of nature and the force of divers men;"—Another, that in her fits six men could not hold her down in her chair in which she was sat, but that she would raise the chair up in spite of their utmost force :"—And this may pass for the *rigid* power.

Poor widow Style was finally induced to make a confession; as people under prosecution, and in the extremity of wretchedness, will often confess, not what is true but what they know to be suspected of them.

The case of Alice Duke is full of clairvoyance.

The case of Florence Newton, who bewitched Mary Longdon by a *kiss*, is also full of clairvoyance. Mary, after the kiss, had "fits or trances, which would take her on a sudden, in that violence that three or four men could not hold her;"—she said that "before the said Florence gave her the kiss, she never had any (fits,) but believes that with the kiss she bewitched her" * * * "Mary Longdon (the account reads) having closed up her evidence, Florence Newton peeped at her as it were betwixt the heads of the bystanders that interposed between her and the said Mary, and lifting up both her hands together, as they were *manacled,* cast them in an angry violent kind of motion (as was seen and observed by W. Aston) towards the said Mary, as if she had intended to strike at her if she could have reached her, and said '*Now she is down.*' Upon which *the maid fell suddenly down to the ground like a stone*, and fell into so violent a fit that all the people that could come to lay hands on her could scarcely hold her, she *biting her own arms* and shrieking out in a most hideous manner to the amazement of all the beholders; and continued so for about a quarter of an hour (the said Florence Newton sitting by herself all that while *pinching her own hands and arms*, as was sworn by some that observed her): the maid was ordered to be carried out of the Court and taken into a house."

Poor Florence was accused of using some threat which she denied, "though many in the Court heard her say the words, and she said, if she did, she new not what she said, being old and *distracted with her sufferings*." In the remarks at the conclusion of the Widow Newton's case it is said, that "all the mischief this witch did was by *kissing or in some way touching the party* she bewitched, and she confessed that unless she touched her she could do her no hurt, which may be called a magical venom or contagion."

But here is quantum suff. of these cases. If I believed in mesmerism as a cause of these phenomena, and were asked why there was so much pain and distraction in the subjects, I should urge, first, that the agent in acting, as it were blindly, would not produce the regular effects perceived in our days, when it is directed by the will under tolerably well defined opinions as to its powers, modifying the feelings of all parties; and, secondly, that in cases of supposed witchcraft, not only the assembled multitude were prepossessed against the supposed witch, but she on her part was conscious of persecution and felt disposed perhaps to wreak vengeance upon the authors of her distress.

I do not insist that a proof of Mesmerism is here adduced, but stating the question conditionally, it may be said that, if Mesmerism be considered as proved, it offers a ready explanation of many witchcraft stories; and, vice versa, if the accounts of witchcraft embrace with considerable uniformity, facts assimilated to those of Mesmerism, they may facilitate our reception of the theory of Mesmer—or rather incline us to believe that his practice and that of his followers or advocates has a real foundation in nature.

"I think," says Sir Wm. Temple, "that a clear account of enthusiasm and fascination from their natural causes would deserve very much from mankind in general, as well as from the commonwealth of learning; it might perhaps prevent so many public disorders, and save the lives of many innocent, deluded or deluding people, who suffer so frequently upon account of witches and witchcraft.

The salvation this age has reached in this respect has not been through any clear account of the natural causes of enthusiasm and fascination:—it has been through an undiscerning doubt of all reality in the one, and an absolute denial of all reality even as a basis of the other, the very notion of the power of fascination being held to be rediculous and absurd in the highest degree; but whether this promises any protection for the future may be reasonably doubted.

With regard to enthusiasm—the chapter in Locke's Essay, on this subject, may satisfy those who receive and are deeply imbued with the principles of knowledge advanced in the Essay; but there is a class of persons, who require a different account of this matter, and among this class are all those who have ever felt a touch of enthusiasm themselves, many of whom are possessed of quiet, unobtrusive and even reserved manners, who are nevertheless dreaming of infinite things and listening, in the spirit, to mysterious harmonies not accessible to mortal ears. These people will not give their attention to an account of this subject upon Locke's principles: they will not only say, as Locke supposes, but they will insist upon it, that "they see the light infused into their understandings, and cannot be mistaken; it is clear and visible there, like the light of bright sunshine, shows itself, and needs no other proof but its own evidence. * * It is its own proof and can have no other."

MEDICAL.

Clairvoyant Examination of Mrs. ———, a female patient, who was placed under our care about the 12th of last April.

"This patient's nervous system is very much deranged, and originates from a diseased condition of the uterine organs. Falling of the womb, blood determines to the head; and there is a torpid condition of the liver. There is a great deal of pain in the head and ears. The principal derangement consists in the uterine organs, which has been conveyed sympathetically to the balance of the system. There is no other derangement recognizable in her system."

Prescription.—"2 oz. of Spear-mint; 1-2 do. Lady Slipper; 1-4 lb. Dogwood Bark; 2 oz. Queen of the Meadow; 1 do. Lobelia herb; 1-4 do. Blood-root; 1 1-2 drachms Capsicum—make into half gallon syrup, add sufficient loaf sugar and brandy to preserve it; take half a wine glass full three times per day. The dose may be gradually increased, as the stomach will bear it."

2dly. White oak Bark, Crane's Bill, Witch-hazle leaves and Sumac berries; take equal quantities of each, except the Crane's Bill, of which use one half—make a decoction, and inject up the birth place once per day for three weeks."

3dly. "Mandrake root pulv.; ex. Dandelion; Gum Myrrh; ex. White Walnut and Blood Root pulv.—make into five grain pills—dose, one evening and morning three times a week for three weeks."

4thly. "A mustard plaster may be placed back of the ear until considerable irritation is produced."

5thly. "Laudanum, Oil Sassafras and Sweet Oil may be combined in equal quantities; and one drop may be dropped into the ears every evening until the pain is removed."

6thly. "The action of the Magneto-Electrical Machine should be passed through the region of the uterus. The positive pole in front, and the negative pole to the spinal column; also through the region of the liver, and down the spinal column, and from the back of the neck to the bottom of the feet."

7thly. "Should bathe the feet three times per week in hot ley water. The head and back and uterine regions should be bathed in cold water every morning."

8thly. Should be careful in dieting. The patient may eat what her appetite craves; but must be careful to eat but little at a time. Little or no meat, however, should be eaten. This course being rigidly pursued the patient will recover rapidly."

The prediction of the *Clairvoyant* was particularly verified. The patient improved rapidly, and soon recovered; although she had been in this deranged condition for seven or eight years, and had successively passed through the hands of the regular mineral practitioners, and the Thompsonians. The patient stated to me that, while under the mineral treatment, she had gradually grown worse; but that her condition had been very much improved by the Thompsonian treatment. The patient is a woman of strong mind and fine judgment. I observed many of the Thompsonian works in her possession, and she informed me, that she had given the subject a great deal of attention. She observed, that she rarely met with any disease in her own family, which she had not successfully treated, except her own case and her youngest daughter's, which was determination of blood to the head, and which was frequently so severe as to produce fainting. This we successfully removed by three applications of the battery. No other remedy was used by me in this case.

We tried the action of the machine on a child of some six years of age, who was laboring under the very severest attack of congestive fever. We found the child perfectly stupid and insensible, apparently to every thing with which he was surrounded. No effort of the parents had proved successful in arousing him. Upon examining him, we found his feet cold up to his knees, and his nose and chin as cold as ice. In this condition we applied the battery. The patient soon raised up—a copious perspiration was immediately produced, and with the aid of a little medicine, the patient immediately recovered.

* * *

THE HUMAN SKIN.

Very few of us indeed are at all aware of the nature of the covering of our own bodies. We see a "soft smooth pliant membrane, which invests the whole of the external surface of the body, following all its prominences; but we know not till the researches of science, which have reached only a few, inform us that the whole of the interior body, all its cavities and bumps, are invested with a similar, or rather the same covering. The skin passes as at the lips or eyelids, into mucous membrane, and one becomes the other, as it is wholly excluded from, or exposed to the free action of the atmosphere. By its surface in the interior and on the exterior are all the functions of nutrition and decay, of health and disease, of appetite and sensation, carried on. Its changing action, according to circumstances, in every climate and temperature, keeps the body at one nearly uniform heat. It is subject to many diseases. Life has been sustained by food imbibed at its exterior pores; the disease which kills and the medicine which cures, may both enter the same openings. It conducts electricity, that mysterious, invisible, and intangible agency, by which we are surrounded, and on the diffusion of which health is dependent, into or out of every part of the frame. It is at once the great enveloping and secretory organ of the whole body, and the immediate means except as to color, by which we communicate with the external world. It can become accordingly the substitute for our least glorious, but not the least useful organs, such as the kidneys, and is the means of conveying to us nearly all that we have ever learned of the glorious universe.

Its structure is not less wonderful than its uses. It is composed of two layers; one horny and insensible, the other highly sensitive; the latter being the actual and universal organ of feeling, and the other varying in thickness as it covers an exposed or hidden part, its ever-attendant guard and protection. Each of these layers is of a different, though analogous structure, and performs different offices. Both are continually renewed, yet each preserves forever its own distinct properties. The sensitive skin is so full of nerves and bloodvessels, of which the scarf-skin is digested, that is scarcely possible to insert a needle in any part of the whole body without causing pain and a flow of blood. Its surface is uneven, to increase its strength and multiply its power. Its papillæ, microscopic in size, by which the enlargement of the surface is provided for, and each composed of a hair-like vessel and a minute nerve, several times bent upon themselves. In every part of it there are perspiratory tubes with attendant glands, terminating on the surface in a pore. To give one striking example of its extraordinary structure, we may mention that Mr. Wilson has counted 3,528 of those pores in a square inch on the palm of the hand; and each tube of which the pore is an opening, being a quarter of an inch long, it follows that, in a square inch of skin on the palm of the hand, there exists a length of tube equal to 882 inches, 73 feet. In other parts of the body the pores are not so numerous. "Taking 2800 as a fair average for each square inch surface in a man of ordinary height, the number of pores will be 7,000,000, and the length of perspiratory tube 175,000, or nearly 28 miles." Well may Mr. Wilson ask, what will be the effect if this drainage be obstructed? Well may every man say, that of this wonderful covering, which ignorance and brutality even yet fetter, scourge and brand, we are wo-fully ignorant, and science cannot be better employed than in ascertaining its properties, and in teaching us how it may best be preserved. The former has been for several years the great object of Mr. Wilson's assiduous researches; the latter is the immediate object of his present work. He has here methodized his own discoveries and the discoveries of other physiologists and anatomists, and given us a practical treatise on the means of procuring and preserving a healthy skin. When we remember that to this end we erect and preserve dwellings and manufacture clothing—a large proportion of the labors of the community, having that for his object, it being in importance second only to supplying us with food (if, in the wonderful economy of nature, any one part can be said to be only secondary)—we conclude, that we can scarcely overrate the value of such researches as those of Mr. Wilson, and the practical lessons he has successfully deduced from them.—[Journal of Health.

* * *

BATHING.

The importance of bathing as a means of preserving and regaining health, is engaging the attention of all classes to a much greater degree than at any former period. The people, no longer looking up to the physician as the Alpha and Omega of their duty on the subject of health, are becoming engaged in an earnest enquiry after physiological truth, and aided by such writers as Combe, Graham and others, they are even now forcing their physicians into an acknowledgment of the valuable benefits of those very practices, which they have neglected to teach and even affected to despise. There has been a great change in the public mind within a few years on this subject. In England, a revolution is progressing, which, if persevered in, must be of incalculable benefit, for when once the importance of a free and unimpaired action of the surface is realized, and the necessity of bathing to secure that object, there will be but few, however elevated or degraded in social life, but what will enjoy its benefits. Baths and washhouses are being erected in London, Liverpool, and many other large places, for the common people, and even now the truth is being perceived, which one day will be more fully acknowledged, that there is an intimate connexion between physical and moral purity. In this country the prejudices existing against the practice, and which have been cherished and often produced by the medical profession, owing to certain influences which excited their bigotry and selfishness, are fast being removed, and the various forms of bathing are being much more extensively practiced by all classes of our citizens. Still there are thousands among us who do not practice entire ablution at all. They are probably ignorant of the physiological truths which demand its observance, and certainly strangers to its pleasant and invigorating effects both upon the body and mind. When administering the bath, we have often seen persons astonished at the amount of impurities collected on the surface, and the resolution at once formed, that they would no longer do such manifest injury to their bodies, by neglecting a practice fraught with so much pleasure and benefit.

Dr. Thomson was the first physician in this country practically to exalt the vapor bath into an important station in the removal of disease, and the opposition it has met with from the Medical profession, the vile misrepresentations and slanders that have been circulated in order to prejudice the public mind against it, show us how completely a Medical despotism would silence any attempt to improve its practice or expose its errors, unless introduced under its own auspices.

But too much light has now been cast upon the subject to prevent further concealment; its good effects are becoming too palpable to be longer denied, and scores of physicians who a few years since would have hazarded their reputation, in allowing even a suspicion to go forth that they were so heterodox as to be in favor of vapor bathing, can now very courageously recommend it, many of them even, from "personal experience of its benefits."—Medical Enquirer.

NOTICES.

Mr. G. Grimes, has laid upon our table two pamphlets, containing each some ninety pages. One, entitled "A SECRET WORTH KNOWING," and devoted to the subject of Insanity. The other, the "LILY OF THE WEST;" and devoted principally to Human Nature. These works were written under peculiar circumstances by Maj. G. Grimes, while an inmate of the Lunatic Asylum, of Nashville, Tennessee. The Major, through his writings, has manifested a great deal of *Pathos;* and, we are sorry to say, but little philosophy.

We have received the MEDICAL ENQUIRER, edited by J. M. Aldrich & T. W. Wood, A. M. This is a spirited little sheet, devoted to the reformed practice; and what pleases us best, is that it is filled up principally with original matter, which savors strongly of correct philosophical principles.

THE

SAINT LOUIS MAGNET.

VOL. II. SAINT LOUIS, AUGUST 1, 1846. NO. 4.

MAGNETIC, OR ELECTRICAL THEORY OF THE CIRCULATION OF THE BLOOD.

We now redeem our promise, which we made in a note at the bottom of page 27, second number and second volume of the St. Louis Magnet.

In connexion with the theory of the circulation of the blood, our design is to show how the body and mind too, are replenished. We are taught physiologically, that the body is thrown off at least once in seven years by insensible perspiration and again replenished by the vital organs, in accordance with the laws of vitality. Reasoning from analogy as well as from effects to their causes, we can come to no other conclusion, but that the mind undergoes the same changes. The mind is of the same form and size of the body—it is ramified throughout the whole body. We cannot put down the point of the finest cambric needle on any part of the body without the mind's being conscious of it. Hence, we can come to no other conclusion, but that the mind is of the same form and size of the body. The fact is, the body is composed of gross globules, which may be perceived by a powerful miscroscope—the mind of infinitely small globules, which cannot be seen even by the aid of the most powerful magnifying glass. The mind, then, is to the animal body what the magnetic fluid is, to mineral matter. We find, too, that the mind is governed by the same laws that the body is. If we exercise the mind too much, it becomes weak and deranged; and if we do not exercise it sufficiently, it is weak in proportion to the deficiency of exercise. The same principles govern the body.

We now pass to the circulation of the blood. We know, from observation and experience, that electricity pervades all matter; therefore, the atmosphere which we breathe contains more or less of this etherial fluid. We are also aware that electricity possesses the property of *attraction and repulsion.* Upon this principle, we solve the problem of the circulation of the blood. Dr. HARVEY discovered how it circulated; it was left for another age to discover the cause of its circulation. We observed that the atmosphere contained electricity, and we now further observe, that this electricity is inhaled into the lungs with the atmosphere. This etherial fluid possesses the power of passing through the lungs, as it does all other bodies; and here it mingles with the blood and gives it that high florid color peculiar to arterial blood. The blood is thus rendered magnetic, and is positive; it is then thrown to the heart, from which it is distributed in every part of the system through the arteries. As the blood passes from the arteries to the vains, it is conveyed through small hair like tubes, which are called capillary vessels. Here the blood parts with its electricity, and consequently its high color. It is now venous blood—negatively charged with electricity, and of a dark color. The nervous system has a stronger affinity for the electricity than the blood, which merely acts as a conducting medium, between the lungs, or atmosphere and the nervous system. The lungs become positive in consequence of having received a fresh supply from the atmosphere. The blood having given off its electricity to the nervous system, is negatively charged, and hence, it rushes to the lungs to receive a new supply of the etherial fluid, becomes charged, and consequently positive, and again rushes throughout the system, distributing the life, giving principle to every organ—becomes negative, and again rushes to the lungs to be supplied with the electric fluid, which becomes *animal galvanism*, by being secreted by the nervous substance. Hence, the blood circulates upon the principle of positive and negative electricity. The blood becomes positive at the lungs, and negative in the capillaries, which connect the arteries with the vains; hence, the law of equilibrium is maintained between the lungs and nervous substance, through the agency of the blood. There is a beautiful anology between the circulation of the blood and the action of the vibratory galvanic battery, which will give our readers who are acquainted with that interesting instrument, a very fine practical demonstration of the electrical theory of the circulation of the blood. The horse-shoe magnet is charged by the battery as the lungs are by the atmosphere, and becomes positive—the hammer, which represents the blood, is attracted to the positive pole of the magnet and becomes positively charged, and hence is repulsed by the positive pole of the magnet and thrown against the negative point above where it parts with its electricity or magnetism—becomes negative, and is again attracted to the positive pole of the magnet, and thus it is continued as long as the machine is kept in order.

The heart subserves its purpose, in the circulation of the blood, which, however, is mechanical, and does not interfere with the electrical theory of its circulation.

We will continue this article in our next number, by giving the electrical theory of animal heat.

We shall then be prepared to explain the manner in which the body and mind, too, are replenished, and consequently sustained—how they grow, and increase in size and strength, and why they decrease in size and strength.

* * *

For the St. Louis Magnet.

SALEM, 19th June, 1846.

Dear Dr. McNair: The Magnet has come to hand and all is explained.

Here is a case of Hydropathy detailed for publication—not to feed the vanity of any one, but to benefit the afflicted. All the facts here stated can be substantiated by the most undoubted testimony, if any are not satisfied with a mere recital of the facts as they transpired.

Mr. H——, of this place, was attacked on the 13th of May last, with Sciatica in the left hip. During ten days he suffered the most excruciating pain from which he could get no relief, day or night—being wholly unable to stand or walk, lie down or get up without help. Throughout all this time, the most approved remedies were resorted to, but all to no purpose. No relief came, and the disease grew worse. At length, when popular cures had proved to be no cure at all, he ventured to try the COLD WATER CURE. The first thing done was to envelope the patient in a wet sheet, (right out of cold water,) placing him in bed under other covering. Here he remained about two hours and a half, drinking frequently small draughts of cold water. In an hour and a half he was in a copious perspiration—the pain had measurably subsided, and the patient was under no excitement. After sweating one hour he was removed, though reluctantly—it being the first time he had been comfortable for many days—and the shower bath was applied, *accompanied with* MUCH *friction*. The next morning the treatment was similar when the pain ceased, the cure was effected, and from that day to this the patient has continued to be entirely well. In three days after commencing with cold water as a remedy, he was able to attend to his business as usual. He wishes his case to be known by others, that they may, if occasion requires, go and do likewise; believing they will experience the same happy result. And to this end these remarks have been hastily penned by

AN EYE WITNESS.

MEDICAL.

CLAIRVOYANT Examination, of Miss——, by C. EAKER:

"This patient's system is very much deranged, and has been for a long time. The liver and spleen are both very much effected, which causes a great deal of pain in her right side and limbs. Her nervous system is quite weak and irritable, which throws the patient into frequent spasms. There is some scrofulitic humor in her system, which shows itself occasionally on the surface. The blood circulates very unequally, and does not determine sufficiently to the extremities."

REMEDIES.—"Queen of the Meadow, 1 1-2 oz; Comfrey, 2 oz.; Lobelia leaves, 1 oz.; Clivers, 2 oz.; Yellow Dock Root, 3 oz.; Bloodroot, 1-2 oz.; Golden Seal, 2 oz.; make into three pints syrup, and let the patient take half a wine glass full three times per day."

"The action of the battery should be passed through from the pubic region to the lumbervertabræ. The negative pole of the battery must be placed over the pubic region, and the positive pole over the lumbervertabræ; which, at the same time, may be passed down the whole length of the spinal column. The negative pole may also be placed over the region of the liver, while the positive pole is being passed along the spinal column. The negative pole may then be placed under the bottom of the feet and the positive to the back of the neck. The whole operation should not occupy more than twenty minutes."

"At the close of two weeks it will be necessary to make another examination, and alter the prescription."

Second Examination.—"Her nervous system is very much improved. The liver and spleen are also very much improved, and require but little more to bring them into healthy action. The blood is quite finpure still, and too much hurried in its passage from the heart to the lungs, which still tends to exhibit slight symptoms of spasms. The principal object is now to purify the blood, and lessen this hurried action, by imparting more iron to the blood."

Prescription—"Sarsaparilla, 3 oz.; Poplar bark, 2 oz.; Dogwood bark, 1 1-2 oz.; Cherry bark, 1 oz.; Golden Seal, 2 oz.; Lady Slipper, 2 oz.; Lobelia herb, 1 1-2 oz.; Soloman Seal, 2 oz.; Capsicum, 2 drachms. Make into three pints syrup. Dose as usual."

2dly. "Extract Dandelion, Sulphate of Iron, and Carbonate of Potash, equal quantities; make into four grain pills. Let the patient take one of these pills three times per day for two weeks."

3dly. "The patient should bathe her feet in warm water, made costic with Salsoda, or common ley, twice per week, just before going to bed, and her head and body should be bathed as often in cold water—this should be done early in the mornings."

4thly. "The patient must be careful to eat but little at a time, and drink no strong tea or coffee. Should take considerable exercise in the open atmosphere."

5thly. "The Magneto-Electrical Machine should still be applied as before; but twice per week will be sufficient."

"Another examination may be necessary before this patient entirely recovers."

Third Examination.—"The patient's system is now in a very healthy condition, with the exception of a slight derangement in the uterine organs, and the blood. There is also a slight irritation in the vagina."

Prescription.—"Take White Oak bark, Witch Hazel bark and Sumac Berries, equal quantities, and make into a decoction. To each pint of this decoction, add one drachm of Alum; to be injected up the birth place once per day, until all the irritation ceases."

2dly. "The Alterative syrup should be taken three times per day for three weeks. Dose, half a wine glass full. This will serve to purify the blood. The patient will require nothing more. She will now entirely regain her health."

This patient had been in delicate health from her fourth year, until the present; being now about thirteen. She had been treated by a number of physicians, and had, of course, taken a great deal of medicine, without receiving any permanent benefit. Her parents became so discouraged with the regular practice, that although residing some two hundred and fifty miles from the city, was induced to send their daughter to us for treatment, the result of which is before our readers. We heard yesterday from the patient, that she was still improving in health, and her friends were perfectly satisfied that she was entirely recovered. She was under our care some three months, and it is now about two months since she returned home. No symptom of her old disease has been discernable since. This was a great triumph, as the disease was of some nine or ten years standing. But this is nothing for the Duodynamic practice. It has failed in no instance in our hands, where organic or structural derangement had not taken place. We have tested it severely in the very worst cases of almost every class. It is mostly patients, who have gone through all kinds of treatment, and then given up to die who give us a trial. Our practice has, notwithstanding this unfair trial of its remedial powers proven itself adequate to this severe test, in every instance. We might fill our Journal with the various cases which pass through our hands; were we to notice every one as minutely as we might. We do no more than state the simple facts in respect to the few cases which we do report, for fear of wearying the patience of our readers; and for fear, too, of crowding out matter which might be more interesting and instructive. Our object is merely to report a sufficient number of cases to demonstrate the theory which we advocate.

ELECTRICITY.

As soon as the different nature of electrics and conductors had been ascertained, and it was known that electrical effects were in proportion to the friction which produced them, philosophers endeavored to construct machines for the greater accumulation of the electric fluid. To Otto Guericke, the inventor of the air-pump, we are indebted for the first of these; it was a globe of sulphur, turned rapidly on an axis by means of a wheel and treadle, the friction was produced by holding the hand against the globe. L'Abbe Nollet added a *conductor*, this was a brass rod suspended by silk from the ceiling. Dr. Watson suspended three globes in a similar manner, and added a *cushion* to each; this latter was a very great improvement; the conductor was suspended from the ceiling as before. Mr. Wilson used a glass globe instead of one of sulphur; added much to the portability of the machine, by suspending the conductor on silk lines stretched across two pair of glass rods, placed on the stand of the machine itself. Now also a screw was first used to modify the pressure of the cushion, and points attached to the conductor. For the next great improvement in this apparatus we are indebted to Mr. Nairne, who employed a cylinder of glass, which he supported vertically; he attached a spring to the cushion, used amalgam upon it, and supported the conductor upon a single glass pillar; thus in his hands that which was before cumbrous and comparatively ineffective, became a useful, a portable and easily constructed instrument, rendered, however, yet more convenient and powerful by the horizontal position of the cylinder, and the silk flap soon afterwards suggested by Dr. Priestly. This was the history of the cylinder machine, and the following is its usual and simplest construction, thus:—

A glass cylinder having upon each end of it a cap of wood or brass, and supported by a stand with two uprights. The end of one cap is turned with a pivot, which fits into a hole near the top of one of the uprights. The other cap is turned with a similar pivot, and has beyond this a flanch and a square gudgeon, upon which a handle fits. This end of the cylinder is supported in a similar manner to the other end, but instead of a hole merely being bored in the upright leg, a portion is cut away, that the cylinder may be the more easily taken out and put up again in its place; it may be secured, when there, by a pin run through the upright just above the axis of the cap. Behind the cylinder is a *cushion* which extends in length to within an inch of either end of the cylinder, it is from one to two inches in width, according to the size of the cylinder; on the lower part of the cushion is glued a flap of leather (the rough side outwards,) and on the edge of the leather the silk flap which passes over the cylinder when in action. The cushion is supported sometimes by a thick rod of glass with a wooden spring at the top of it; at other times a springy piece of wood alone is used. It is fastened at the top to the cushion by a hand-screw, which passes through the support, and is fixed by a thread in the back of the cushion itself. The lower end of the support for the cushion is made so as to slide backwards and forwards, either on the top, or still better underneath the stand, and is held in its position by a thumb-screw.

The *prime conductor* is formed either of wood covered neatly with tin foil, or of metal. It has round and smooth ends, at one of them a ball and wire for the suspending of various apparatus, at the other a projecting wire furnished with a row of points to collect the fluid when disturbed by the cylinder. It is necessarily supported upon a glass pillar, sometimes attached at the lower end to the same stand as the rest of the machine, in which case the conductor runs parallel to the cylinder, and has the points driven into the side instead of the end. At other times it is fixed to a separate foot. At the top of the conductor are two or three holes to afford greater facility in performing experiments. The cushion is attached to the spring, and glass leg which supports it.

To make a Machine.—In making a cylinder machine, observe carefully the following directions. The centre of the cylinder, of the cushion, and of the conductor should be of the same height. The lower part of the cylinder, unless in a very small machine, should be at least 10 inches above the foot of the stand beneath. The glass pillar of the prime conductor not less than 14 inches long, the conductor itself about as long as the cylinder, and from 2 to 3 inches diameter; the points projecting nearly an inch. The silk flap should be thin and extend to within an inch of the points. Fix the caps upon the cylinder thus:—Make some cement according to the following receipt, which have melted ready for use: roughen with a file the glass on each end of the cylinder, and bore a small hole through the axis of that cap which does *not* bear the handle; this done, stop up the inner end of the hole again with a small piece of dough, putty, or clay. Now grease the outside of this cap well, put it in an upright position, half-fill it with the melted cement, warm well the end of the cylinder, put it upright into the prepared cap, let it remain till the cement is hard, and then clear out the hole through the centre by a hot wire; being very careful that it is at all times afterwards left open. This is necessary as a vent for the heated air, which of course will be liable otherwise to burst the cylinder, not merely when the other cap is fixed to it, but ever afterwards when the machine is in action. The hole being thus opened, the other cap may he fixed on in the same manner; a second hole however is not necessary. The cause of greasing the outside of the cap is, that any cement which flows over may not stick to it.

By attending to the above description and observations, an electrical machine may be made out of a common sample phial, capable of giving sparks, charging a Leyden jar, and performing most of the simple electrical experiments.

Electrical Cement.—Put together in a pipkin over the fire, 2 lbs. of yellow rosin, 4 ounces of bees'wax, and a quarter of a pint of linseed oil; to which add, when melted, about half a pound of red ochre; stir them together and they will be fit for use when wanted; the cement must never be heated so much as to be frothy.

To work the Machine.—Warm the whole well before the fire, and cleanse it from all damp and dust. Take off the cushion, scrape away all dirt, spread evenly upon it some fresh amalgam, put it back in its proper place, and fasten to the screw, which connects it with its upright, a brass chain, the other end of which reaches to the table or floor, or the walls of the apartment. Upon now turning the handle, streams of fluid will be seen to issue from the cushion, and passing under the silk, to fly off at its edges. To collect the fluid, place the conductor with its points about a quarter of an inch from the edge of the silk, which will so readily attract the fluid from the cylinder, that sparks proportionate to the extent of the glass surface rubbed may be taken from it, being very careful however that the glass stand of the conductor be perfectly dry. The pressure of the cushion against the cylinder is to be regulated by the screw on the stand at bottom.

Note.—If the machine be small, it will require frequent warming; the power of a machine is generally increased by rubbing the cylinder for a minute or two with a slightly-greased rag, or by putting one hand upon the cushion.

The rationale of the action going on, is this:—the fluid passes from the earth through means of the floor, walls, &c., to the chain suspended from the cushion, here friction, which is the cause of the disturbance, takes place. The disturbed fluid passes to the glass cylinder, and is confined from escaping by the silk flap; that ceasing, the fluid would fly to any thing around, particularly to a pointed body, or a lighted candle, but this is prevented by the superior attraction for it from the nearer end of the prime conductor put to receive it. Thus it will be at once seen that an electrical machine resembles a pump; the earth may be likened to a well of water; the chain to the lower pipe of a pump; the cushion is the sucker; the silk the nozzle, and the prime conductor is like a pail to hold the fluid.

[From the Vicksburg Weekly Sentinel and Expositor.]

NEUROLOGY.

During the last two weeks, Dr. J. R. Buchanan has been engaged in the delivery of a series of Lectures to a private class of gentlemen in the city of Jackson, upon the science of Neurology. In consideration of the great satisfaction which the class have derived from the Lectures, and the experiments performed by Dr. B., and in view of the benefits which must result to mankind from the propagation of this new and interesting science, the class selected the undersigned as a committee to prepare a Report on this subject for publication.

It will be recollected that some years ago, much curiosity and speculation was created in this country by the science of Phrenology, as taught by Doctors Gall and Spurzheim. Their discoveries extended only to the *location* in the head, of distinct organs or developments of the brain, each of which was believed to perform a separate and distinct office from the whole mass of the brain. In proportion to the greater or less development of these distinct organs of the brain, the mental characters of persons were found to differ; and hence, the peculiarities of every mind were traced to the peculiar shape of the head. Phrenology was discovered by the visual observation of the size and shape of the human head and brain, and pretended to nothing but the establishment of the fact that the brain was the seat of the mind, and that the difference in minds was caused by the difference in the size and shape of the several distinct organs of the brain. In the study of Phrenology, Dr. Buchanan was led to believe that the distinct convolutions of the brain were not only the organs of peculiar characteristics of mind, but that each convolution had also a peculiar *physiological* effect on some portion of the body. In the course of his investigations he discovered by experiment that the brain could be stimulated to action by *external means*, and that there was a class of persons in whom the organs of the mind could be severally effected by the application of the hand in an appropriate manner. Know that the nerves were the channels of a regular connection between the brain and the body, he conjectured that the stimulation of any part of the brain must produce an effect upon the part of the body with which that part of the brain sympathized. To test the truth of this conjecture, he placed his finger on a single convolution of the brain of an impressible person, thereby stimulating the same to more than usual activity. While under the influence of this stimulation, the subject of the experiment would state his sensations, both of mind and body, and in what region of the body the sensation was felt. In this manner, and in similar methods, experiments were repeated over the whole surface of the head and body, and the result was, not only the discovery of numerous mental organs previously unknown, but also the further discovery that every convolution of the brain was susceptible of a distinct action, and that when excited to action each convolution of the brain had a specific influence over our sympathy with a corresponding portion of the body—a sympathy so intimate and inseparable, that by touching any portion of the body with the hand, the sensation would be distinctly felt in a corresponding convolution of the brain.

By these experiments Dr. B. enlarged and corrected the old system of Phrenology—added thereto a novel and interesting system of Cerebral Physiology, and finding that his discoveries presented a complete view of the whole constitution of man, sought a more comprehensive term than Phrenology for this more extensive Science. Regarding all the powers of the human constitution as inherent in, or flowing from the *nervous substance* of the brain, and body, he selected the term NEUROLOGY for the nomenclature of the new Science.

Having briefly explained the origin of the Science, we will now speak of the Lectures delivered before the class in this city.

When the Lectures commenced, several members of the class were familiar with the cerebral locutions of the different organs of the mind by Gall and Spurzheim, but none were acquainted with the location of the organs subsequently discovered by Dr. BUCHANAN, nor did we believe it susceptible of proof that each convolution of the brain had a separate corresponding sympathetic organ in the body. To demonstrate the truth of this position experiments were resorted to. By applying the palms of his hands to the foreheads of several members of the class, and slowly withdrawing them, he found a number of persons who were attracted towards his hands, as he drew them back; this was the test of *impressibility*. These impressible persons were then directed to place their hands upon different parts of the body of any member of the class, and describe the mental sensation produced thereby. In this way the most novel disclosures were made. The limits of this report will not permit us to recite the experiments in detail, but suffice it to give a few examples. By a diagram of the head prepared by Dr. B. the head is subdivided into several parts. The *forehead* is the region of *intellect*—the *top* of the head is the region of *Virtue*—the *back* of the head, from the crown, along the occipital region, is the region of *Power*, *Energy*, *Health*, *&c.*—below the occipital knob, and *behind the ear*, is the region of *Crime*—and in *front* of, and *below the ear*, is the region of *Disease*, *Debility*, *&c.*

The impressible person, by placing his finger on the various parts of the breast bone, would experience sensations corresponding to the Intellectual region of the head—such as foresight, sagacity, judgment, wit, reason, &c. The trying the experiment on the side of the chest, from the region of the nipple to the collar bone, he would get sensations of love, religion, philanthropy, benevolence, friendship, &c., corresponding to the organs in the region of virtue. Then touching the shoulder and arm, he described sensations of dignity, pride, ambition, love of power, hardihood, health, energy, &c., corresponding to the organs of the brain in the region of power. Then touching the back below the shoulder blade, he would describe sensations of coldness, drowsiness, and an inclination to sleep, corresponding with similar organs in the brain. By experimenting upon the organs of Somnolence and sleep, without any Mesmeric procedure two members of the class were reduced to the somnolent condition, so that their eyes were closed, and the physical control over them suspended. In this condition, Dr. B. executed the organ of mirth, and they laughed vehemently in their sleep, and one of them stamped the floor with his foot; then by a touch on the region of irritability and combativeness, they became morose, contracting the brow, compressing the lips, and clenching the fists, as if for a desperate fight. They were kept in this state several minutes; and other organs were touched with like effect. Dr. B. then placed one of the fingers of each sleeper on the forehead of another person, and they awoke and sprung to their feet as suddenly as if under the effect of an electric shock. They then stated that they were conscious of the presence of persons, and could hear distinctly what was said, but they had no power to open their eyes, or exert corporeal action, except as stimulated on the different organs by Dr. B. In the course of the Lectures, experiments, both by Dr. B. and the members of the class were made on many other cerebral and corporeal organs, producing results equally wonderful and convincing of the truth of the Science; all of which, except the cases just mentioned, were made in a perfectly natural condition of the parties, without the production of any somnolence.

Among other experiments, we should not omit those upon *Autographs.* Dr. B. asserted that in the *impressible* constitution, a remarkable power might be developed, which would enable the person when in contact with a piece of writing, to sympathise with the mental condition of the writer to such an extent as to appreciate and describe the leading traits of his character; and in proof of this doctrine, he placed either a letter, or the signature of a person of public notoriety on the most intellectual or intuitive region of the forehead of an impressible person, and directed the person to state his physical and mental sensations. The subject would then state what region of his brain was most excited, and the general effect produced on his mind, and give his opinion of the general character of the writer from these sensations. After the description was given, the autograph would be shown, and to the astonishment of the class, the description of character invariably coincided with the known reputation of the writer. In this manner, experiments were made upon the autographs of GEORGE WASHINGTON, General JACKSON, THOMAS H. BENTON, MARTIN VAN BUREN, JOHN C. CALHOUN, Gen. CASS, Gen. E. P. GAINES, and many other public and private characters; and the descriptions were so faithful that the performer would frequently state not only the general outlines of character, but also the author's *occupation* in life—the *offices he has held*—the *objects of his ambition*—the estimation placed on him by the public; and finally call the author's name. On one occasion, the class invited a number of ladies and gentlemen to hear a lecture on the philosopy of *color* and *music.* After the conclusion of the Lecture, a member of the class observed to Dr. B. that one of the spectators present had a full development of the *intuitive region*, and that the audience would be gratified with the experiment of an autograph upon him. An autograph was accordingly applied—the subject soon showed signs of great mental excitement, and proceeded to describe a character which no one, familiar with the peculiarities of JOHN RANDOLPH, of Roanoke, could mistake. He also stated, that the writer, at the time of writing, was *sick* and *in bed.* Before the signature was disclosed, the same letter was placed on the head of another impressible person—he concurred in the general characteristics given by the first performer, and in the fact that the writer was sick and in bed. In addition, he was asked what were the writer's opinion of the ladies. He replied in substance, that he had an aversion to the ladies, and treated them with great disrespect. The letter was then shown to the audience by Dr. B., and it proved to be a letter from John

Randolph to Bela Badger, of Pennsylvania; and he stated in the letter that while writing the same, he was very sick, and confined to his bed. The aversion of Randolph to the ladies is a matter of notoriety. Several members of the class have tried similar experiments on persons not belonging to the class, and similar results have been obtained. The public will, no doubt, regard these statements as too miraculous for belief; but we have witnessed the experiments, and hereby attest their truth.

The Science of *Neurology*, as presented by Dr. Buchanan, purports to be a complete system of Asthropology. It is the only system of which we have any knowledge, which combines Mental Philosophy and Physiology, with Phrenology, and thoroughly explains the connecting links of these distinct Sciences. Anatomy and Physiology have heretofore been studied independently of their relations to the mind; and mental science has been studied apart from its relations to Anatomy and Physiology; but as Psychology and Physiology are intimately blended, and inseparably connected in fact, these partial views afford a very unsatisfactory system of Philosophy. Neurology remedies all these defects, explains all the mysteries heretofore clouding these separate sciences, and unfolds the entire mental and physiological structure of man. It establishes beyond all question that the brain is the common centre of the human constitution, in which all the powers of mind are located, and act by appropriate organs on the body; and that it is also the focus of the physiological system in which the nervous forces, presiding over animal life, may be located, and their relations traced. By direct experiment on the brain or body of the living man, each point of contact developes a peculiar faculty of the mind, trait of character, or power of the body; and the combined result of these experiments presents not only an extensive and beautiful system of Mental Philosophy, but the most extraordinary and finished system of Physiology which has ever been presented to the world.

We feel no hesitation in saying that Dr. B. has opened a great highway to the philosophy of Man, and we see nothing to obstruct the progress of further discovery. The system of Phrenology, which he has already developed, is one of vast extent, and supplies the innumerable defects of the system of Dr Gall. In his application of the new system, we have witnessed a delicate analysis of character, and an accuracy in pointing out the peculiar Phrenological and Physiological developements of different individuals, which might alone be regarded as a sufficient proof of the correctness of the theory. In a class of forty gentlemen, we have seen Dr. B. determine by a glance at their heads, the structure, the physiological action, and peculiarities of the lungs in each individual; stating, with a precision to which every man gave his assent, their different powers of respiration, their tones of conversation, and their respective peculiarities of delivery, both in common conversation, and in public speaking. The science is therefore one of practical utility. It enables the student to determine readily the peculiarities of each man's bodily constitution, as well as the constitution of his mind. To the practitioner of medicine such a power over the human system must be of incalculable value. It will enable him to point out the defects in each body, and to trace diseases to their origin; it will give him a skill in the administration of medicine heretofore unknown to the healing art.

While on this point we will mention an experiment. On one occasion, as the members of the class entered the room, Dr. B. gave to each man a paper folded after the manner of a medical preparation; he directed us to hold it between the palms of our hands, until we felt the effect, and then describe the same. In the space of five minutes several persons were sensibly affected, and in the course of half an hour, nearly every member of the class was in a state of prespiration, and evidently under the influence of a strong opiate. The class were then directed to state from their sensations, what the papers contained. Several physicians immediately pronounced it *Morphine*, and the whole class finally came to that conclusion; the papers were opened, and found to contain ten grains of Morphine. This goes far to prove that the human system receives an influence from every substance brought in contact with it, and therefore that medicines may be administered as well by external as internal application, and even without physical contact with the skin. This doctrine is a part of Dr. Buchanan's theory. He states that some persons are so highly impressible and sensitive to external influences, that they cannot only be influenced by medicines, but by metals and minerals, which lie many feet under ground. To this susceptibility he attributes the success of many persons in finding the location of water under ground by the use of twigs, or limbs of trees—the power is not in the twig or limb used by the water hunter, but consists of the attractive influence of water upon their own bodies. This fact Dr. B. claims to have established by absolute experiment upon the constitutions of persons who possessed this singular power. If these experiments are continued, and prove successful, we may soon have a class of men so highly impressible by mineral substances, as to enable them to locate mineral regions with certainty.

The singular relations which Dr. B. has traced between the action of the mind and the physiological movements in the body, the circulation of the blood, the secretions and muscular action, have that simplicity and grandeur which are found in all the laws of nature, when fully understood, and in fact, constitute nothing more than the Natural Philosophy of Man.

The science of Phrenology has been objected to by some, on the ground that it led to Materialism, and was therefore in hostility to the spiritual doctrines of the Church. Dr. Buchanan's experiments entirely dissipate this objection. While he shows that the brain is the mere organ of the mind, and the seat of life and action, he also demonstrates that the action of the mind is not confined within the brain, it is not a ponderable substance confined by the laws of attraction to any particular spot; but is a spiritual essence, capable of unlimited expansion—communicating not only with all that is past, but reaching far into futurity. If the experiments upon Autographs prove any thing, it is that the writer communicates thereto an indelible and imperishable mental or spiritual impression—an impression entirely beyond the reach of optical discovery, but which when brought in contact with the intuitive or spiritual region of the mind, is so plainly perceivable as to reveal the character of its author, and his capacity for the various offices of life. If this be true, (and we cannot deny it without rejecting the evidence of our senses,) why may not the same spiritual power look into futurity and discover the destiny of man? Such a capacity is entirely above and beyond the laws of matter—it is an influence acting upon, and governing matter—a divine omniscience, verifying the truth of the assertion that man was created after the image of his Maker. Take from a man his mind, and he is no longer a man, but gross and offensive matter.

The views of Dr. Buchanan upon the laws of Light, and of Sound, and their connexion and analogy with Mind, constitute an interesting portion of his Lectures; snd should his future discoveries in these and other branches of his Science be as successful as the past, we may indulge the hope of attaining an insight into the spiritual nature of man heretofore unknown to the scientific world. The boldness of the views which he presents of the more exalted powers of the mind coupled with illustrations by experiments on the brain, are such as must delight the most ardent Philanthropist. A System of Philosophy in which there is so much of elevation, so much of spiritual beauty, so much that is gratifying to our moral and religious sentiments, and at the same time so much of practical utility to all mankind, cannot but excite the most deep and abiding interest.

It is but justice to Dr. Buchanan to say that he advances no views, and urges no doctrine, which he does not fully sustain by experiment, He pretends not to work miracles—his object is not to gain the reputation of a mountebank, nor to be a temporary wonder with the ignorant—but he devotes all the energies of a vigorous mind, and a profound education, to the experimental developement of the qualities and capacities of the whole human system. That great *terra incognita*, the *brain*, is his principal theatre of action, because it contains the governing principle of life—from this source he excavates his Philosophy, and those who are ignorant of its principles, and disbelieve its truth, have only to witness his experiments to be overwhelmed with the conviction that Neurology is the true Science of Man.

Dr. Buchanan is a *Kentuckian*—a citizen of the United States; his discoveries and his fame belong to us. Let every man encourage him—let croaking be hushed, and jealousy smothered—let him have the countenance and support of all intelligent and philanthropic men—he is no traitor to his country—no foreign spy in our midst. His Philosophy can do no harm, but may result in the most incalculable benefit to mankind.

JOHN D. FREEMAN,
C. R. CLIFTON,
DANIEL MAYES,
J. E. MATTHEWS,
T. C. THORNTON,
WM. S. LANGLEY,
W. H. YOUNG,
A. B. CABANISS.

* * *

DE OBFUSCATIONIBUS.

[*Continued.*]

But I have not yet quite done with Mr. Jos. GLANVILLE. You have seen that his object was to prove the reality of witchcraft. In the course of his argument he has the merit of having anticipated and refuted the celebrated argument of David Hume against miracles. This is alluded to much to the honor of Glanville by Tennemann as may be seen in his manuel of Philosophy; and in order to do justice to Glanville's discrimination I shall give you his argument on this point before introducing his account of the celebrated Irish healer, *Greatrax*, which ought to make another important figure in the evidence of Mesmerism:—for the advocates of Mesmerism claim for it a power of healing certain diseases. In Glanville's argument he labors to refute all objections brought against his views, and among them he states one in these words: "Miracles are ceased, therefore the presumed actions of witchcraft are tales and allusions;" upon which he remarks, that "to make a due return to this, we must consider a great and difficult problem, which is, *what is a real miracle?*" You will recollect, that Hume says, that "a miracle is a violation of the laws of nature; and as a firm and unalterable experience has established these laws, the proof against a miracle, from the very nature of the fact, is as entire as any argument from experience can possibly be imagined." This argument has convinced thousands and thousands, although it is absolutely and utterly demolished in the very first few lines of Glanville's answer to the objection above stated against witchcraft. His language is quaint but very clear and decisive. "I think," says he, "it is not the strangeness or unaccountableness of the thing done, simply, from whence we are to conclude a miracle. For then, we are so to account of all the *magnalia of nature*, and all the *mysteries* of those honest *arts*, which we do not understand."

"Nor, is this the criterion of a miracle—that it is an action or event *beyond all natural powers*; for we are ignorant of the extent and bounds of nature's sphere and possibilities: and if this were the character and essential mark of a miracle, we could not know what was so; except we could determine the extent of natural causalities and fix their bounds, and be able to say to nature, *Hitherto canst thou go, and no farther*: and he that makes this his measure whereby to judge a miracle, is himself the greatest miracle of knowledge or immodesty."

One must be an unexcusably careless or thoughtless reader not to see in this beautiful passage a full answer, and most decided rebuke to David Hume's assertion, that our "Experience has established" the laws of nature; that is, in plain English, that nothing can happen in nature, of which we have not experience—that nature can go no "further" than we already know.

Glanville proceeds to state what constitutes a real miracle, but in order to fortify his first position above, he says: "That such things as are only strange and unaccountable performances, above the *common* methods of art and nature are not ceased, we have a late great evidence in the famous Greatrax; concerning whom it will not be impertinent to add the following account which I had in a letter from the Rev. Dr. R——, Dean of C——, a person of great veracity and a philosopher. This learned gentleman is thus pleased to write"—But before giving the letter I will premise, that the "falling sickness" alluded to in this account as having been cured by Greatrax, is described by Sir Wm. Temple (vol. 3, page 379) as *Epilepsy*—and this, in immediate connection with an accusation against Mahomet that he was subject to such *fits* and that he called them *trances* in which he pretended to receive instructions in the will of God :—The letter adduced by Glanville reads thus :

"The great discourse now at the Coffee Houses, and every where, is about Mr. G. the famous Irish healer, concerning whom it is like you expect an account from me. He undergoes various censures (opinions) here, some take him to be a Conjurer, and some an Impostor, but others again adore him as an Apostle. I confess I think the man is free from all design, of a very agreeable conversation, not addicted to any vice, nor to any sect or party, but is, I believe, a sincere Protestant. I was three weeks together with him at my Lord Conwayes, and saw him, I think, lay his hands upon a thousand persons, and really there is something in it more than ordinary: but I am convinced it is not miraculous. I have seen pains strangely fly before his hand, till he hath chased them out of the body, dimness cleared, and deafness cured by his touch: twenty persons at several times in fits of the Falling Sickness, were in two or three minutes brought to themselves, so as to tell where their pain was, and then he hath pursued it till he hath driven it out at some extreme point; Running Sores of the King's Evil dryed up, and Kernals brought to a suppuration *by his hand;* grievous sores of many months date, in a few days healed; Obstructions and Stoppings removed; Cancerous Knots in the breast dissolved, &c., &c.

"But yet I have many reasons to persuade me, that nothing of all this is miraculous. He pretends not to give testimony to any Doctrine, the manner of his operation speaks it to be natural, the cure seldom succeeds without reiterated touches, his patients often relapse, he fails frequently, he can do nothing where there is any decay in nature, and many distempers are not at all obedient to his touch. So that, I confess, I refer all his virtue to his particular temper and complexion, and I take his spirits to be a kind of Elixir and Universal Ferment; and that he cures (as Dr. M. expresses it) by a sanative contagion.

[*Continued.*]

SWEDENBORG'S ANIMAL KINGDOM.

Introductory Remarks by the Translator.

JAMES JOHN GARTH WILKINSON, Member of the Royal College of Surgeons, of London.

It will be the aim of the following remarks to give a general view of the doctrines of the "Animal Kingdom," and of their relation to the past, present and future state of science; and in so doing, to address those chiefly who are acquainted with the theological writings of SWEDENBORG, as forming the class by whom, at present, the work is most likely to be read, and to whom it may be the most useful and satisfactory.

The evolution of the natural sciences amounts to the creation of a new sphere in the human mind; and since this development has not taken place under the auspices of theology, but either in direct or tacit opposition to the prevailing church; since it proceeds from without, and proposes knowledge and intelligence as ends distinct from spiritual life; therefore it constitutes a sphere which is not in unison with the current doctrines of religion, but from the beginning has menaced their subversion; and which, unless reduced to order, is opposed, however true its materials in themselves may be, to the understanding of all genuine truth. It was a perception of this character in science, and also of the fact that the universal human mind was becoming immersed in scientifics, that impelled SWEDENBORG to enter the field of nature, for the purpose of demonstrating in an order corresponding to the order of heaven, and thereby of making it a medium to spiritual and sacred truths. This was his paramount end in the construction of the "Animal Kingdom."

The system therein propounded rests upon the foundation of experience; namely, of such experience as the learned world had accumulated at SWEDENBORG's time, not indeed upon the particular experience strictly and proximately belonging to any one science; for such experience would be inadequate, in the present imperfect state of our insight, to suggest the universal truths that each science involves; but upon the general experience of all ages in all the sciences. This, it is to be presumed, was SWEDENBORG's meaning, when he likened himself to one of the racers of olden time, who before he could merit the crown, was commanded to run seven times round the goal; and again, when he declared that we must be instructed by all things of one thing, if we are to know that one thing thoroughly. As his theory is not derived from particular experience, so it cannot finally be either confirmed or denied by any isolated fact or facts. For it is a conclusion from the order and tenor of facts universally; in a word, from an integral survey of nature. Unless this be borne in mind, the very largeness of the field from which his inductions are drawn, and the very strictness of mind which caused him to test them through all the sciences, will only make them seem the more like baseless hypotheses. In this case the analytic process may easily be mistaken for the synthetic, and SWEDENBORG may be charged with committing the error which he begins his work by denouncing in others.

SWEDENBORG announced the starting-point of his method in the first lines of his first chapter; namely, that "the use or effect which produces the end must be the first point of analytic enquiry." First comes the question of fact or result; next, the reasoning upon it. Unless we reason from uses, what chart have we in the exploration of structures? To illustrate this, let it be supposed that a complicated tissue—for instance, the skin—presents us with three undoubted effects, say of absorption and excretion; from these effects we infer the existence of a threefold organism to produce them; for effects imply causes, and functions forces, motions, accidents, &c., are predicates and unvarying signs of substances. Having proceeded so far, we have then to distribute the effects to their proper organic causes in the tissue; and thus effects furnish the rule for the first analysis of a structure. In many instances indeed it will be impossible to trace effects to visible organic causes, in which case the mental sight must take up the operation, and continue and complete it, and this, by the assistance of the several instruments and appliances which are now to be mentioned.

It is impossible to understand either the Word or the works of God, without doctrines, which in both cases require to be formed by "one who is enlightened."* The doctrines made use of by SWEDENBORG, in the "Animal Kingdom," are the Doctrines of Forms, of Order and Degrees, of Series and Society, of Influx, of Correspondence and Representation, and of Modification. These doctrines themselves are truths arrived at by analysis, proceeding on the basis of general experience; in short, they are so many formulas resulting from the evolution of the sciences. They are perpetually illustrated and elucidated in the "Animal Kingdom," but never stated by SWEDENBORG in the form of pure science, perhaps because it would have been contrary to the analytic method to have so stated them, before the reader had been carried up through the legitimate stages, beginning from experience, or the lowest sphere. Each effect is put through all these doctrines, in order that it may disclose the causes that enter it in succession, that it may refer itself to its roots and be raised to its powers, and be seen in connexion, contiguity, continuity, and analogy, with all other things in the same universe.[†] They may be compared to so many special organs, which analyse things apparently homogeneous into a number of distinct constituent principles, and distribute each for use as the whole requires. To deny any of these doctrines, or to give them up in the presence of facts that do not range upon them at first sight, is to nullify human mind as the interpreter of nature.

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* Arcana Cœlestia, n. 10582.

The Doctrine of Forms teaches that "the forms of all things, like their essences and substances, ascend in order and by degrees from the lowest to the highest. The lowest form is the angular, or as it is also called, the terrestrial and corporeal. The second and next higher form is the circular, which is also called the perpetual-angular, because the circumference of the circle involves neither angle nor rectiliner plane, being a perpetual angle and a perpetual plane; this form is at once the parent and measure of angular forms. The form above this is the spiral, which is the parent and measure of circular forms, as the circular, of angular forms. Its radi or diameters are not rectilinear, nor do they converge to a fixed centre like those of the circle; but they are variously circular, and have a spherical surface for a centre; wherefore the spiral is also called the perpetual circular. This form never exists or subsists without poles, and axis, foci, a greatest circle, and lesser circles, its diameters; and as it again assumes a perpetuity which is wanting in the circular form, namely, in respect of diameters and centres, so it breathes a natural spontaneousness in its motion. There are other still higher forms, as the perpetual-spiral, properly the vortical; the perpetual-vortical, properly the celestial;[*] and a highest, the perpetual-celestial, which is spiritual, and in which there is nothing but what is everlasting and infinite." There is then a scale of forms, whereof the higher are relatively more universal, more perfect, and more potent than the lower. The lower again involve the higher and the highest, and are generated by them: so that where there is an angular body, there is a circular form and force intimately present as its ground; where there is a circle, it is the limit of an interior spiral; and so forth. For nature operates from the very principle of geometry and mechanics, and converts them all to actuality and use. The purer substances in creation gyrate through the higher forms; the less pure circulate through the lower, or are fixed in the lowest. All the essentials of the angular form are opposed to each other, whence the origin of gravitating and inert matter, intrinsically unfitted for motion. But the other forms, according to their eminence, are more and more accommodated to motion and variation.

[†] By a universe, Swedenborg appears to mean any complete series as referable to its unities.

[*] Swedenborg here uses the term celestial, not in the sense which is peculiar to it in his theological writings, but more with the meaning attached to it in the phrase, "celestial globe," as pertaining to the form of the universe.

The Doctrine of Order teaches that those things which are superior in situation, are also superior in forces, in power, in dignity of office, and in use; and that a similar law determines the situation of the parts of things, and of the parts of parts. Corresponding to the highest or first of the series of subordination, is the central or innermost of the series of co-ordination.

The Doctrine of Degrees teaches the distinct progressions through which nature passes when one thing is subordinated to, and co-ordinated with another. There are three discriminated degrees in all things, both natural and spiritual, corresponding to end, cause, and effect. In the human body there is a sphere of ends, a sphere of causes, and a sphere of effects. The body itself, comprehending the viscera of the abdomen and chest, and the external sensoria of the head, is the sphere of effects; the brain, and the whole of its appendages, are the sphere of causes; the cortical substances of the brain are the sphere of ends or principles, These spheres are subordinated to each other in just series from the highest to the lowest. The highest degree or sphere is active, the lowest is passive and re-active. The above degrees, in their order, indicate the progression from universals and singulars to generals or compounds. But every organ again involves the same triplicity of spheres; it consists of least parts, which are congregated into larger, and these into largest. All perfections ascend and descend according to degrees, and all attributes, functions, forces, modes, in a word, all accidents, follow their substances, and are similarly discriminated Each degree is enveloped with its common covering, and communicates with those below it thereby.

There is no continuous progression from a lower degree to a higher, but the unity of the lower is the compound of the higher, and in transcending that unity, we leap out of one series into another, in which all the predicates of force, form, perfection, &c., are changed and exalted. The Doctrine of Degrees enables us to obtain a distinct idea of the general principles of creation, and to observe the unity of plan that reigns throughout any given organic subject; and by shewing that all things are distinct representations of end, cause, and effect, it empowers the mind to refer variety to unity, as the effect to the cause, and the cause to the end, and to recognize the whole constitution of each series as homogeneous with its principles.

[*Continued.*]

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[*From the Botanico-Medical Recorder.*]

"Among the various advocates of electricity and neurology, none seem to apply them more judiciously than Dr. McNair, of St. Louis; though he even had better leave out of the prescriptions of his clairvoyant, the few poisons recommended."

"We make these remarks preliminary to a short article from Dr. McNair, which in the main is so good, that we take pleasure in transferring it to our paper. It will be found in the Magnet, vol. 2, p. 5. We make a few comments."

For this high compliment to our Electrical Theory, we thank Prof. Curtis very kindly. We fear, however, from the Prof's. comments, that he has not quite caught the spirit of our theory. This, as we feared, would naturally grow out of the hasty sketches, which we have penned; not having time nor room, to do the subject that justice which it certainly demands. We have, as yet, done little more than state the propositions, and the few corollaries consequently deduced. In time we will endeavor to fill up all the blanks. We must confess, however, that we cannot agree with many of the Prof.'s restrictions upon our theory. Was it consistent with the course which we have marked out, we would take up several of the comments, particularly (3) and (4,) and show the principles which we hinted at, to be mathematically correct. But, this course would lead to little more, than controversy. We do not expect every person to fall in with our peculiar views to the very letter. We are merely thinking for ourself, a privilege, which we not only grant to our readers, but we should think them recreant to their duty, did they not exercise that noblest of all faculties, in judging of every matter for themselves. Hence, we are pleased to have our views commented on; and should we not be convinced of errors, into which we may run, others, may by that means, be prevented from falling into those errors. We investigate, reason, and write for truth, and not for anyparticular theory, into which our prejudices may leadus.

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ELECTRICAL THEORY OF ANIMAL HEAT.

We have shown in the preceding article, that the blood is the conducting medium for electricity, between the lungs and the nervous system. To show that the blood is a suitable conductor, we have only to add, that chemical analysis has demonstrated the blood to contain charcoal and iron, which are both perfect conductors of electricity. Oxygen is the only simple substance which naturally combines with negative electricity, while nitrogen, carbon, &c., are naturally combined with positive electricity. The union of the negative, with the positive electricity, forms caloric. It is upon this principle we shall seek a solution of the problem:

"What causes animal heat?"

The union of these two electricities takes place, when two substances form a chemical combination, in which instance their opposite electricities are disengaged. In the act of respiration, the negative electricity contained in the oxygen, which is inspired, unites with the positive electricity contained by the blood, and produces the evolution of heat, which takes place in the lungs, and from this point conducted through the system. In proof of this fact, we find in all cases of disease, that heat is unequally distributed through the body—the most excited part of the system accumulating the greatest amount of heat. "Like causes, like effects." Let us see if analogy will support our theory. It is known, that if the opposite poles of an electrical machine be brought together, so that positive and negative electricity are united, that this combination evolves heat, and that, the heat will be in próportion to the amount of electricity present. For instance, take a galvanic battery, and bring the opposite poles sufficiently close together to be connected by a piece of charcoal, and it will immediately ignite—the densest metals—even the diamond may by this means be reduced to its original element. Hence, we find that the union of positive and negative electricity evolves heat, which may be sufficiently concentrated to produce combustion.

To carry out our views still further, and strengthen our position, we will further state that a piece of iron may be heated until it is of a white heat, then by throwing a current of cold air upon it by a bellows, there will be sufficient heat evolved to reduce the iron to a liquid form. This effect is, undoubtedly, produced by the negative electricity contained by the air, combining with the highly charged state of the iron. Respiration itself is a partial combustion, and the atmosphere is the fuel which feeds the flame, and keeps up the heat. Combustion takes place in consequence of the highly excited condition of the opposite principles in action, producing a high degree of friction, attended by the disengagement of heat. Heat is produced by the union of the opposite electricities, which are set at liberty, in consequence of the oxygen combining with the combustible body. Hence, we see how animal heat may be produced.

But again, in respiration, a certain portion of oxygen combines with the carbon of the blood, and converts it into carbonic acid gas. Every chemical union produces an evolution of heat, owing to the union of positive and negative electricity. Hence, again, heat is evolved when the oxygen of the atmosphere combines with the carbon of the blood. If this heat was obtained merely from the heat contained in the air, as has been supposed by some, the temperature of the body would not be so uniform, and the respiration would necessarily be effected during the night. This important function is undoubtedly carried on by means less variable and uncertain; and it is very plausible to suppose that animal heat is produced principally, if not entirely, by the chemical process which we have described. Though we may feel chilled by the inspiration of the night air, the temperature of the blood remains about the same, and respiration is as free and as regular at night, and in the winter, as in day time or in summer, provided the lungs are in a healthy condition.

This, however, is not the case, when the air has lost its elasticity, which depends upon the quantity of electricity it contains. The breathing then becomes oppressive, and many unpleasant nervous sensations are the result of a negative state of atmosphere. This state of the atmosphere soon produces disease, and if it should continue too long, death would ensue. There is a material difference in our feelings, in a damp cloudy day, and a clear dry day. In the first, the atmosphere is negative, and in the latter it is in a positive state of electricity. The union of negative and positive electricity, causing an evolution of caloric, undoubtedly takes place in all the organs in which chemical changes are carried on. Bichot asserts that "heat is produced in the general capillary system, as well as in the lungs." Hence, heat may be generated in other organs as well as the lungs, and thus diffused throughout the system.

The evolution of heat which takes place in the *stomach* during digestion, is no doubt caused by the union of the nervous fluid, (which is a modification of electricity,) with the opposite electricity of the aliment. We cannot doubt the nervous influence in digestion; for should the eighth part of nerves which go to the stomach be tied off or severed, digestion would cease. This experiment is very conclusive proof of the nervous influence. Digestion then, may be produced by attaching the wires of a galvanic battery to the nerves, which lead to the stomach. It is also possible then, that electricity acts an important part in the chemical changes, which takes place in digestion, as well as in all the organs of secretion; for the *chemical combination* of different substances is partly effected by the union of positive and negative electricity. These facts would go very far in proving the identity of electricity, galvanism, magnetism and the nervous fluid. There can be but little doubt, that electricity is the primary or elementary principle, and tha galvanism, magnetism and the nervous fluid, are but modifications of this *universal* principle. Hence, we find that the properties of electricity are calculated for the performances of all the principal functions of the animal body—chemical change, muscular motion, animal heat, etc., etc. Hence, too, we develope the sublime fact, that the animal body is an exquisitely organized *galvanic battery*, by means of which, heat is constantly evolved, vitally supported, sensation excited, and locomotion produced, and the whole maintained as long as the machine is kept in proper order.

We are now prepared to show in few words, how the body and mind, too, are replenished and invigorated.

ELECTRICITY.

[*Continued.*]

Two Theories of Electricity.

In a very early stage of electrical inquiry, it was observed that there was a remarkable difference of effect manifested by different substances when excited. *Ex.*—Charge two insulated pith balls by holding near them an excited glass tube, the balls will separate from each other; the same is the effect when both are charged by holding to them an excited stick of sealing wax, yet when one is electrified by the glass and the other by the wax, they are mutually attracted.

This circumstance gave rise to the opinion that two different species of the electric fluid existed, a theory first promulgated to the world by M. DuFay, who called the two fluids by names accordant to the substances which produced them; that produced by the friction of glass he called vitreous, and that caused by exciting sealing wax, the resinous.

This opinion of Du Fay was eagerly adopted by the electricians of Europe, who by it were enabled to account for all the appearances their experiments elicited, but when it became known that the same substance sometimes showed the vitreous and sometimes the resinous, the names given to the two fluids became inapplicable, and when the Leyden phial was discovered, they were at a loss to explain its action by this hypothesis. Dr. Franklin, with his usual sagacity, founded the other theory; not indeed a perfect system, but one which rapidly ran over Europe and America, for it was the only one which could explain the action of the Leyden jar, which at that time engaged the whole attention of the learned. He imagined that there was but one fluid, and that all bodies whatever contained a certain quantity of that fluid; which quantity we may increase or decrease at our pleasure. When increased he styles it *plus*, or *positive* electricity, and when a diminution takes place, he calls it *minus*, or *negatively* electrified, which terms positive and negative are now universally applied when speaking of electrified bodies. Not being able to explain the action of the Leyden jar was not the only reason for doubting the truth of M. Du Fay's theory, for it was soon discovered that the same body showed sometimes the resinous, sometimes the vitreous effect; how could this be accounted for? On the other hand, by Franklin's hypothesis nothing is more easy. The different effect is produced by the state of the rubber, as it is found that when two substances are rubbed together, so as to exhibit electrical appearances, that one of them is always positive and the other negative. The following list of substances is so arranged, that when either is rubbed with any of the bodies placed above it, it becomes negative, and rubbed with any standing below, it shows signs of positive electricity.

Back of a cat.
Smooth glass.
Woolen cloth.
Feathers.
Wood.
Paper.
Silk.
Gum lac.
Roughened glass.

Thus if a tube of smooth glass be rubbed with a woolen cloth, or a silk handkerchief, it becomes electrified *positively*, as these bodies stand under it in the table, but if glass be rubbed with cat's fur, it becomes *negative;* in the former case, it absorbs the fluids from the materials rubbed against it, and therefore becomes overcharged; in the latter case it shows a negative property, in consequence of parting with a portion of its natural share, to the cat's skin—thus, as Franklin would have said, it has a superfluity in one case, in the other a deficiency.

Nothing can possibly be more easy to understand than this, and in every case in which the theory can be applied, equal facility can be offered, or at any rate there is no fact which cannot be explained by this hypothesis, except indeed such as are equally unintelligibly by the other also.

But in giving an opinion on any disputed point of philosophy, it is right to state the arguments for and against any particular view, and to institute a fair comparison, by explaining the foregoing experiment by means of Du Fay's theory. Those of his school believe that there are two electrical fluids, antagonistic to each other, and that when one of these is by any means disturbed, the other is equally so—thus it supposes two causes for a single effect, certainly an anomaly in physics. In the rubbing of the glass tube with a woolen cloth, and thereby producing an electrical action, two fluids then are disturbed, which two, nevertheless, exist in each body; and when the glass and cloth are separated, still the fluids do not coalesce, though both are present in every portion of the glass, and also of the woolen. Why this is, nobody can tell, nor is an attempt at explanation given at all. It has been said, that there are many circumstances to invalidate the Franklinian hypothesis—the strongest of which is, that when a shock is passed through a card there are often two holes made in it, therefore, there must necessarily be two fluids passing—each of which has its appointed channel. Nothing can be more easy than to explain the reason of these various perforations. Is it not, also, the fact, that if the water of a river meets with an obstacle, it divides into two streams, though it still passes on in its general course? And thus it is with the electric fluid. The card is the obstacle, being a bad conductor, which occasions the fluid to break into two streams—there are seldom more than two, because the fluid requires no more channels; sometimes, and, indeed, most frequently, but one, and then one hole only is apparent. The same experiment affords a second objection to the one-fluid theory. If a shock be passed through a damp card, a burr, or rough edge, will be found on each side of it, which some persons believe to be an incontestible proof of two fluids, one passing in each direction. The experiment really proves no such thing, and may be imitated many ways—by the passage of one body only through another: thus, when a leaden ball is fired from a a musket against a sheet of copper, with sufficient force to pass through it, a double burr will be very plainly distinguishable; so also enlarge a hole that has been made in an iron hoop, with a semi-circular tapering bit, such as is used for metals, and a very strong burr will be found on each side of the hole. In these instances it is certain that but one body is in motion—why then should a similar appearance in the card prove that there are two fluids in motion? There is truly no appearance of a double stream in any electrical experiment whatever. Pass a shock over the surface of a card covered with vermillion, a single black mark will appear. In lightning there is but a flash in one direction, no counter flash meets it in its course. When a shock is sent along an exhausted glass tube, so as to imitate a falling star, or when a falling star is seen in the heavens, no other stream of fire is apparent; and also the circumstance of the luminous star visible on the negative side of the apparatus, and the brush on the positive side, is wholly inexplicable by the system of Du Fay, though nothing is easer by the more simple and more philosophical hypothesis of Franklin.

[To be continued.]

DE OBFUSCATIONIBUS.

[*Continued.*]

"This, sir, says Glanville, was the first account of the Healer, I had from that reverend person, which with me signifies more than the attestations of multitudes of ordinary reporters; and no doubt but it will do so likewise, with all that know that excellent man's singular integrity and judgment. But besides this, upon my inquiry into some other particulars about this matter, I received these further informations."

"As for Mr. G. what opinion he hath of his own Gift, and how he came to know it? I answer, he hath a different apprehension of it from yours and mine, and certainly believing it to be an immediate gift from heaven; and 'tis no wonder, for he is no Philosopher; and you will wonder less, when you hear how he came to know it, as I have often received it from his own mouth. About three or four years ago he had a strong impulse upon his spirit, that continually pursued him whatever he was about, at his business, or devotion, alone, or in company, that spake to him by this inward suggestion, (*I have given thee the gift of curing the evil.*) This suggestion was so importunate, that he complained to his wife, that he thought he was haunted; she apprehended it as an extravagancy of Fancy, but he told her he believed there was more in it, and was resolved to try. He did not long want opportunity. There was a neighbor of his grievously afflicted with the King's Evil. He moved his hands up and down over her,* and the effect succeeded. And for about a twelvemonth together he pretended to cure no other distemper. But then the Ague being very rife in the neighborhood, the same impulse, after the same manner, spoke within him, (*I have given thee the gift of curing the Ague,*) and meeting with persons in their fits, and *taking them by the hand, or laying his hand upon their breasts*, the ague left them. About half a year afterwards the accustomed impulse became more general, and suggested to him (*I have given thee the gift of healing,*) and then he attempted all diseases indifferently. And though he saw strange effects, yet he doubted whether the cause were any virtue that came from him, or the people's fancy: To convince him of his incredulity, as he lay one night in bed, one of his hands was struck dead, and the usual impulse suggested to him to make trial of his virtue upon himself, which he did, stroking it with his other hand, and then it immediately returned to its former liveliness. This was repeated two or three nights (or mornings) together.

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* See II Kings, v. 11, marginal variation of *strike.*

"This is his relation, and I believe there is so much sincerity in the person, that he tells no more than what he believes to be true. To say that the impulse was a result of his temper, and that it was but like Dreams, that are usually according to men's constitutions, doth not seem a probable account of the phenomenon. Perhaps some may think it more likely, that some Genius who understood the sanative virtue of his complexion, and the readiness of his mind, and ability of his body, to put it in execution, might have given him notice of that which otherwise might have been for ever unknown to him, and so the Gift of God had been to no purpose."

"This, sir, continues Glanville, is my learned and reverend friend's relation, and I judge his reflections as ingenious, as his report is sincere. I shall say no more about it but this, that many of those *Matters of Fact, have been since critically inspected and examined by several sagacious and deep searchers of the Royal Society*, whom we may suppose as unlikely to be deceived by a contrived imposture, as any persons extant.

The case of Greatrak (or Greatrax) is in possession of the advocates of Mesmerism, and some slight reference to him may be seen in the Magnet, published in New York. But Glanville's account is more circumstantial, rational and credible, than any now in circulation. There is another account of him by Henry More (doubtless the Dr. M. referred to in the first letter above) in the 58th sec. of a work entitled Enthusiasm Triumphatus, which can only be had I presume in old or extensive libraries.

According to your wish, I will add some other evidences of Animal Magnetism, some of which I think you will hardly see in the publications of the day.

There may be reasonably more weight attached to an argument resting on alleged facts, not originally set forth to establish the point in question. The objection to most recent experiments in favor of Mesmerism is, that they have been made and are urged for the purpose of supporting a theory. If similar experiments or facts can be authenticated as having occurred "of old time which was before us," they are much less questionable and carry with them much greater weight. Even mere intimations and vague allusions, besides assertions and opinions, are useful in critical hands to establish important results, as all know who are familiar with Niebuhr, De Wette, and Strauss. But each one must make his own inferences.

The 7th question discussed in the 5th Book of Plutarch's Symposiacks is, "concerning those that are said to be-"witch," and from the fact that the question was discussed at all, it must be allowed to have been regarded as of some importance. One of the Collocutors says, "we know that some men by looking upon young children hurt them very much, their weak and soft temperature being wrought upon and perverted;" and it is added,—"But perhaps this is not so much to be wondered at, for in *touching* and *handling* there is some apparent principle and cause of the effect * * * * * so there is no reason to the contrary, but that one man's *touch* may be good and advantageous, and another's hurtful and destructive. But that some, by being barely looked upon are extremely prejudiced *is certain*, though the stories are disbelieved, *because the reason is hard to be given*. * * * But methinks there is some small track to the cause of this effect, if you come to the *effluviums* of bodies."

In the "Natural Questions" Plutarch cites Empedocles for the opinion that "Effluvia proceed from all things whatever—not only animals, plants, the earth and sea, but stones and even brass and iron do continually send out many *effluvia*. Drawing along or falling occasions *effluvia*: some suppose embraces, others blows, some impulses, others circuitions." This is according to the translation of 1694—that by Holland of 1603 is no better.

Again in the Essay to explain "Why the Oracles cease to give answers," Plutarch introduces some one who says, appealing to Hesiod, "that the same difference that there is between one man who acts in a tragedy and another who acts in comedy, is also to be found in this life in souls that are clothed with bodies. So that there is nothing in this which is strange or contrary to reason: If souls meeting with other souls do imprint on them visions and apprehensions of future things; just as we show several things already done and come to pass, and prognosticate of those which have not yet happened, not only by the help of speech, but also by *letters* and *writings*, or by a *bare touch* or a single look * * * For the soul, whilst 'tis fastened to the body, has the power of discerning future things, were it not blinded by the relation it hath to the earthiness of the body. For as the sun does not then properly become bright, when it has escaped out of a cloud (for he is always bright, though to our eyes, being clouded, he seems obscure and dark) so the soul acquires not then the faculty of divining, when freed from the body as from a cloud, but having the same before, is blinded by the commixture and confusion which she has with the mortal body." * * "Our souls then having this inbred power, though weak, obscure and hardly able to express their apprehensions; yet sometimes they spread forth and recover themselves, either in dreams, or in the time of sacrifice or of religious worship." * * "Now this faculty, like blank paper, is void of any reason (cause) or determination of itself, but is susceptible of fantasies and pre-sensations (pre-visions?) and without ratiocination or discourse of reason, touches on that which is to come, when it is farthest off from the *present, out of which it departs, by means of a certain disposition of body*, which we call Inspiration or Enthusiasm. *Now the body is sometimes endued naturally with this disposition;* but most times the earth casts forth to men the causes of several other powers and faculties (than they ordinarily have,) some of which carry men beside themselves into ecstacy and prhenzy, and produce maladies and mortalities; others again are sometimes good, gentle and profitable, as appears by those who have had experience of them."

There are many more opinions similar to these in Plutarch, but here are enough to satisfy not a few that shadows like these have been in the world a very long time, and some may think it not impossible to discover the reality by which they are cast. It is an old maxim, that where there is much smoke there is some fire; and although Dr. Dendy, in his playful work on the Philosophy of Mystery, may laugh at Cardan and others who have claimed the extraordinary endowment of being able to throw themselves into ecstacies, as putting forth groundless pretensions, it may nevertheless be possible that some men should have that power; and while in the possession of it they may now and then fancy it the evidence of divine favor, and regard their visions as truth supernaturally communicated, although others may see in most cases merely a disturbed imagination: It is not very difficult to believe that, in occasionally a single case, a remarkable coincidence of favorable causes may bring forth declarations of such seeming truth and power that, as Carlyle says in the case of Mahomet, a hundred and fifty millions of people may live upon them for more than twelve hundred years.

"After his *fits* or *trances*, says Sir Wm. Temple, Mahomet wrote the many several parts or chapters of his Koran, as newly inspired and dictated from Heaven, and left in them that which to us, and in its translations, looks like a wild fantastic rhapsody of his visions and dreams, or rather of his fantastical imaginations and inventions, but has ever appeared among all his followers as a book sacred and divine; which shows the strange difference of conceptions among men."

[To be continued.]

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SWEDENBORG'S ANIMAL KINGDOM.

[*Continued.*]

Series is the form under which the co-ordination and subordination of things, according to order and degrees, ultimately present themselves. The whole body is a series, which may be looked at either generally, from above to below, as comprising the head, the chest, and the abdomen; or universally, from within to without, as divisible into the three spheres already alluded to. All the organs of each region are a series; each organ in itself is a series; and every part in each organ likewise. In short, every thing is a series and in a series. There are both successive and simultaneous series, but the latter always arise from the former. Essences, attributes, accidents, and qualities follow their substances in their series. Every series has its own first substance, which is more or less universal according as the series is more or less general. This first substance is its simple, unity, or least form, governing in the entire series, and by its gradual composition forming the whole. Each series has its limits, and ranges only from its minimum to its maximum. Whatever transcends those limits at either end, becomes part of another series. The compounds of all series represent their simples, and shew their form, nature, and mode of action. The Doctrine of Series and Society teaches that contiguity and continuity of structure, and indicative of relationship of function, and that what goes on in one part of a series, goes on also, with a determinable variety, in all the other parts: wherefore each organ is to be judged of, and analysed, by all the others that are above and around it. In this manner, the whole series is the means of shewing the function of each part of itself, and indeed of analysing that function into a series similar to that of the whole; for the least in every series must represent an idea of its universe. Under the operation of this law, the point becomes a world analogous to the great world, but infinitely more perfect, potent, and universal.

Such is a very brief illustration of the Doctrines of Order and Degrees, Series and Society, from which it will be evident how closely connected these Doctrines are, and that they can hardly be stated without our seeming to repeat of one what has already been predicated of the others. Degrees appear to involve the distinct progressions of creation from above to below, or from within to without: order, to appertain to the law of succession observed in degrees, whereby rank and height are given to excellence, priority, universality, and perfection; series, to involve the complex of the whole and the parts when created and coexisting; and society, to be the law of contiguity and relationship existing between different series, and between the parts of any single series. Perhaps it would not be far wrong to state in generals, that order and degrees involve the creating and successive, series and society, the created and simultaneous. But as we have said before, Swedenborg never stated these doctrines as promised in the "Animal Kingdom," but contented himself with using them as analytic instruments in the exploration of the body; and therefore the reader will learn them best in the way of example and illustration in the Work itself.

The Doctrine of Influx involves the manner in which the lower substances, forms and forces of the body subsist, as they at first existed, from the higher and the highest; and in which the body itself subsists from the soul, as it at first existed; and the natural world from the spiritual. But there is not only an influx from within, but also from without, and by virtue of both, the body, which otherwise would be a mere power, is raised into an active force.*

The Doctrine of Correspondence and Representation teaches that the natural sphere is the counterpart of the spiritual, and presents it as in a mirror; consequently that the forms and processes of the body are images of the forms and activities of the soul, and when seen in the right order, bring them forth and declare them. It shows that nature is the type of which the spiritual world is the ante-type, and therefore is the first school for instruction in the realities of that which is living and eternal.

The Doctrine of Modification teaches the laws of motion and change of state in the several auras or atmospheres of the world, and in their spiritual correspondents. †

What was stated of the Doctrines of Order, Degrees, Series and Society, as mutually supposing, or as it were interpenetrating each other, may be repeated generally of the whole of these doctrines, and this, because they are all but so many varied aspects of the one principle of divine truth or order. Like nature itself they are a series, each link of which involves all the others.

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* See "Animal Kingdom," vol. II, p. 559.

† See Animal Kingdom, vol. II, p. 49.

The Doctrine of Series and Degrees in conjunction with that of Correspondence and Representation, teaches that there is a universal analogy between all the spheres of creation, material, mental, and spiritual: and also between nature and all things in human society. The circulation of uses in the body perfectly represents the free intercourse of man with man, and the free interchange of commodities between nation and nation. The operations that go on in the body, analogically involve all the departments of human industry; nay, and infinitely more, both in subdivision, unity, and perfection. There is not an art or trade, whether high or low, so long as it be of good use, but the Creator himself has adopted and professed it in the human system. Nay, in the richness of his pervading love, the very prerogatives of the mind are representatively applicable to the body. End, cause, and effect, as existing in Himself, are represented in the latter as well as in the former. Liberty and rationality, the universal principles of humanity, are transplanted by analogy from the mind into the body. It presents an analogon of liberty, in that every organ, part, and particle, can successfully exercise an attraction for those fluids that are adapted to its life and uses; of rationality, in that it acts as though it took cognizance of the adaptability, and operates upon the materials demanded and supplied, in such a manner as will best secure the well being of itself and of the whole system.

This may account to the reader for the extremely figurative character of Swedensborg's style, and shew that it proceeded from the reason and not from the imagination. It is because each thing is a centre to the life of all things, that each may freely use the exponent terms of all. Analagous uses in the body and the soul furnish the point of contact between the two, and the possibility and the means of intercourse. Had Swedenborg confined himself to the dry straitness of what is now called science, he must have forfeited the end he had in view; for matter, as matter, has no communion with spirit, nor death with life. It was absolutely necessary that the body should be tinctured with life in all possible ways, when it was to be the medium of instruction respecting the soul.

But it is time to instance a few of the results to which the above doctrines lead when wisely applied to the living body. It will, however, be impossible to give anything beyond the merest sketch of Swedenborg's physiology, or to look at it from more than a single point of view. He himself has regarded it from all sides, or from each organ and sphere of the body, and given what may be called a combined proof of its correctness.

The alimentary canal and the whole of the viscera of the abdomen form one grand series subservient to the creation of the blood. This again is divided into three inferior series, whereof one primarily respects the chyle, another the serum, and a third the blood already formed. There are then three series of digestions: 1, The alimentary canal commencing at the tongue and terminating with the rectum, performs as many distinct digestions of the food, and eliminates from it as many distinct products, as the canal itself has distinct divisions, and articulations. Thus there is the chyle of the tongue and mouth, the chyle of the stomach, the chyle of the small intestines, and the chyle of the large intestines, and all these chyles subserve the blood in a successive series, coincide in its formation, and ultimately coexist within it in a simultaneous series. When the chyle has been inaugurated into the blood, and is once in the arteries and veins, it is no longer called chyle, but serum. 2. The serum is the object of the second digestion. The finer parts of it therefore are secreted, and the worthless parts are excreted and thrown out, just as was before the case with the food. The former operation is performed by the pancreas, the latter by the kidneys. 3. The blood itself is the object of the third digestion. This process, termed by Swedenborg the lustration of the blood, takes place in the capillaries and glandular elements all over the system, but specifically in the spleen, the pancreas, and the liver. As in the first series there are various menstrua or media between the chyle and the blood namely, in the mouth, the Saliva; in the stomach, the gastric juice, which is the saliva potentialized by the peculiar action of the stomach; * in the small intestines the pancreatic juice, and the hepatic and cystic biles; and in the large intestines the liquid distilled from the vermiform appendage of the cœcum; so in each of the other series corresponding menstrua are required and applied. The blood of the pancreas, and the blood of the spleen deprived of its serum by the pancreas, serve in the liver as a menstruum for refining the chyle and lustrating the blood.

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* See "Animal Kingdom," vol. I, p. 122, note (a) p. 133, note (y.)

The lymph is a kind of ultimate saliva which digests the chyle as the common saliva digests the food. The lymph of the spleen, for instance, digests the chyle in the mesentery, as its blood digests the chyle and blood in the liver. In short, as all the abdominal viscera form one series of uses, so the lowest and largest form of that series may be taken as an exponent of the whole; and it will then be found that all these organs are high evolution of the alimentary tube, digesting finer and finer aliments, (for the blood itself is the essential aliment of the body,) and throwing out subtler and subtler excrements or impurities. Thus the liver is the stomach of the chyle and blood; and the ductus hepaticus and the gall-bladder and ductus cysticus are respectively analogous in their proper series to the small and the large intestines.

The viscera of the thorax also minister to the blood. The heart is a chemical organ for preparing liquids to enter into its composition, at the same time that it is the beginning of the circulation. It separates the blood into two parts, a purer and a grosser; the purer it sends away through the lucinæ underneath the columns on its inner surface, by a series of ducts into the coronary vessels, which are the true veins of the heart, † the grosser into the lungs. Thus it also is an organ of blood-digestion or sanguification. The lungs have three general functions: 1. They lustrate all the blood of the body, especially in regard to its chyle or serum; their office in this respect being analogous to that of the kidneys in the abdomen. 2. They feed the blood with aerial and ethereal chyle, as the viscera of the abdomen with terrestrial chyle. 3. They call forth the powers of all the organs of the body by respiration. With respect to the last-named of these offices of the lungs, namely, that they supply the body and all its parts with motion, it is one of the most important discoveries in the "Animal Kingdom," and not less wonderful in its consequences than in its simplicity and obvious truth.

MEDICAL CASES.

CLAIRVOYANT Examination of Mr. ———, by C. Eaker:

"This patient's system is very much deranged—there is much general debility, and considerable of low internal fever. The lining membrane of the lungs are very much irritated, and also of the stomach. The liver is quite torpid, and the digestive organs are weak.

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† On this subject examine Swedenborg's "Economy of the Animal Kingdom," tr. i., n. 399—459.

The principal cause of these derangements, is loading the stomach with too great quantities of food; and especially with too great a variety of dishes at the same meal, which over exercises the digestive organs, and consequently weakens and debilitates them. It also produces too great a fomentation in the stomach, which creates inflamation, and fever is the result. From long standing, and a continuation of the same cause, the disease has spread from one organ to another, until the whole system has become equally involved in the general derangement."

Remedies.—" 1-4 lb. Cherry Bark; 2 oz. Dandelion Root; 1 1-2 oz. Lady Slipper; 1 oz. Blood Root; 2 1-2 oz Elecampane; 2 oz. Soloman Seal; 1 1-2 oz. Mandrake; 2 oz. Liver Wort—make into half a gallon of syrup, and add one pint of best brandy. Let the patient take half a wine glass full three times per day."

2dly. " Take one drachm of ex. Dandelion; 1 oz. Sulphate of Iron; 1 oz. Carbonate of Potash; 1 oz. Gum Myrrh—Make into five grain pills—dose, one three times per day."

" The Magneto-Electrical Machine should be applied once per day for two weeks. The negative pole should be placed over the region of the liver and stomach, and the positive passed along the whole length of the spinal column."

" The patient should spunge his system all over about every third evening with tepid water made caustic with salsoda, and every morning with cold saline water.

The alkaline bath will tend to remove the gummy matter, which settles on the surface, and the saline bath will strengthen the capillory system, and enable it to perform its functions properly."

If the patient will rigidly adhere to this course of treatment, and at the same time be very careful to eat but little at a meal, he will soon recover his health. He may eat whatever his appetite craves; but he must recollect to eat but little at a time of any one dish, and the simpler his meals the better."

" The patient should spend several weeks in the country, and take considerable exercise on horseback—should quit studying, and attend to the developing of his physical powers. These have been very much impaired by over mental exercise."

This patient followed the prescription, and long since recovered his health. When this examination was made, he was a mere skeleton, and fairly staggered as he walked with weakness. His appetite was voracious, and he had indulged it until he was nearly past recovery. He had exhausted the skill of the Old School without receiving any benefit, and applied to us as a last resort.

We have used Clairvoyance a long time in our practice, and have always found it more successful than our most sanguine expectations could have anticipated. It is truly strange, that it is not more generally resorted to by the Medical Faculty—especially the thousands who have become acquainted with its wonderful power in developing disease. It is a matter of no small importance to a physician, to know correctly the internal condition of his patients.

Physicians may judge pretty correctly by external symptoms, we admit; but in how many instances are they completely mistaken, and never discover their error until it is quite too late! Thousands have thus died, ah! more!—have been killed, who might have been saved, had the physician correctly understood their disease. We boldly challenge the world for success in practice, and not in a dogmatical presumptive spirit, as many will undoubtedly suppose; but the facts will prove that it is modestly true.

We are bound to no narrow, nor even to that much lauded middle course, in our practice; but our system of practice is as broad as our perception, and as deep as our judgment, and as sure and as safe as the union of the whole of nature's remedial agents, which are known to us, could possibly render medical science, in the hands of fallible man. The mineral and the vegetable; the Hydropathic and the Duodynamic, or Magnetopathic, are all used as necessity requires.

The vegetable kingdom is based upon the mineral, and the animal upon the vegetable. The vegetable kingdom modifies and prepares the mineral kingdom for the support of the animal—hence, we choose the principle of our medicines from the vegetable kingdom. But the animal is intimately connected with the mineral, and man combines within himself particularly the principles of the whole—hence, again the justice, and great probability, that all are subservient to him in disease, as well as in health.

We feel conscientious in the course which we pursue, and the result of our practice warrants us in its continuance. Although patients fall thick and fast around us; yet we have raised every patient by these means, who has fallen in our hands since last February. (1) Not for the reason either, that few have fallen in our hands, nor for the want of severe cases to test the correctness of our practice. We have had as much practice as we could attend to, and much of it were of the most aggravated cases, having been given up by other physicians, and may truly be said to have fallen into our hands at the eleventh hour. We are very positive, however, that without the aid of Clairvoyance, we should make many failures.

(1) NOTE.—The case rdeferre to here is reported in the first number of the second volume of this work.

* * *

OSKALOOKA, IOWA, July 28th, 1846.

To the Editor of the St. Louis Magnet:

DEAR SIR—How melancholy it is to see the want of a more general information among the Medical Faculty. They seem to think that they are already in possession of all the knowledge, collectable upon the sublime and intricate science of their profession. We hope to see the time arrive, when they will expand the caliber of their minds, and lay aside their dogmatical prejudices, and investigate for truth, and not for a particular theory; which is so distructive to the gaining of general information, and progressive improvement in medical science.

My object is to call your attention to a case, in our neighborhood, which has completely baffled the skill of our regular physicians. They do not know what to make of it. My opinion is, Mesmerism will explain the phenomena, and remove the disease.

The case is this, a child about seven years old, the daughter of a Mr. Sprague, has for some time been laboring under some singular derangement of her nervous system. She goes into spasms, in which the muscles contract and relax in rapid successions, throwing her body in every possible position. She remains in this condition for a few minutes, when she either returns to her natural state or appears to rest in profound sleep. When the latter is the case, she will talk to you as rational as when in her natural state; and will even tell of occurrences about which she knows nothing when in her proper mind. She has from seven to eight of these spasms within the course of a week; they frequently last from seven to eight hours. When talking about her strange disease in her presence, she will go into spasms. It not unfrequently requires the strength of two men to hold her in bed, while under the influence of this nervous derangement.

When she comes out of these spasms, and returns to her natural condition, her health is as good apparently, as it previously had been. She is of a bilio-nervous temperament, very lively, conversant, and fond of play—more so than most children of her age. What is still more strange in respect to her disease is, that she recollects nothing that occurs while thus affected. She awakes up from these long and strange sleeps, as if aroused from a mesmeric slumber, and immediately recovers her natural tone and energy. She has been affected in this manner for some twelve months.

She has been under a mild course of mercury, and freely blistered for the purpose of allaying any irritation that might be present in the medulla-spinalis. These I believe are the principal facts in the case with which I am acquainted, which I cheerfully submit for your consideration.

Your advice in this case would be greatfully received.

Your sincere friend,

J. H. CHITWOOD.

In this case we would advise the use of Mesmerism, or the Magneto-Machine. We have entire confidence, that either one of these remedial agents properly applied, or both of them as necessity may require would produce a radical cure. Should this course fail, we would advise the aid of clairvoyance. This is a strange case, and in the days of Glanville, who reported the facts which are embodied in the articles De Obfuscationibus, she would have been considered bewitched. But Science, the savior of the world, has nearly disarmed the people of two most powerful weapons—ignorance and superstition. All effects are now referred to natural causes, which, if properly understood, may be modified, if not removed.

[From the Water Cure Advocate.]

MODES OF USING THE WATER CURE.

The following modes of using water as a curative agent, are extracted from the "Philosophy of the Water-Cure," written by Balbirnie. The work from which we copy is published in cheap form, (five copies for one dollar,) by Wilson & Company, New York. It should be read by every one who cares for his own health, or the health of others.

THE RUBBING WET SHEET.

This is an intermediate process between ablutions and immersion in the cold bath, whether of the half or of the whole of the body; and is therefore another of the preparatory measures of treatment. A large coarse linen sheet adapted at once to imbibe water and to excite friction, wrung out of cold water or allowed to be dripping, is dexterously thrown as an envelope round the body: the patient at the same moment commences friction on the fore part of his person, while an assistant plies the same process on all the posterior parts. This rubbing may be continued from two to five minutes, when the skin becomes much reddened, and a comfortable glow is felt. A dry sheet is then used in the same way, and a very exhilarating reaction ensues.

This kind of bath is a more invigorating agent than mere ablution; because its momentary shock is more decided; evaporation from the surface is prevented; and a greater amount of friction is permitted. The temperature of the water, as well as the quality and quantity of friction, must be apportioned to the delicacy of the patient and the nature of the case. This is the cheapest, the readiest, and the best of all portable baths. It is a convenient application at home, and no incumbrance on a journey; realizing the advantages of the shower and plunge baths, without their occasional disadvantages, and always at hand.—" Delectat domi, non impedit foris, pernoctat nobliscum peregrinatur, rusticator."

THE SHALLOW, OR HALF BATH.

This is the common oblong bath used in our bed-rooms but containing only from three inches to one foot depth of water, of various temperatures as the case may require. This bath is used in two opposite modes, and with two very distinct intentions. It serves, in one class of cases, as a preparation for the full bath; and it answers admirably in another class of cases, where a prolonged continuance in the bath is wanted to produce a derivative effect.

1. With the first object it is frequently used morning and evening, and commonly after " unpacking from the wet sheet. The patient remains in it from three to ten minutes, being well rubbed by an assistant, and himself joining, if possible, in the operation: a few basins or buckets of cold water are generally thrown over him, before he rises from the bath. Exercise is advisable to be taken after this, as after all the other baths.

2. The second object for which the shallow-bath is employed, consti-

tutes it the 'decus et tutamen' of Priessnitz; demonstrating at once the resources of his system, and achieving some of the highest triumphs of his genius. In persons suddenly stricken down by violent maladies—in inflammatory attacks—in congestions of the nobler organs—or when collapse of the vital and voluntary powers exact the alternative of obtaining speedy reaction or incurring sudden death—in such cases, prompt and powerful measures directed by soundest judgment can alone save the patient: this means, or without its ally before-mentioned, is the single resource and the sole warranty of hope. The temperature the bath for this purpose must be lowered, and its duration prolonged from one to four or six hours, with continued friction, until reaction consecutive fever, or derivation to the extremities, is decidedly established.

THE FULL BATH OR GENERAL COLD BATHING.

This is of immemorial usage, whether in sea, river, or lake, both as a curative agent in disease, and a preservative in health. Its genial action depends on the degree of shock received, and the amount of reaction ensuing. Much fallacy prevails as well among the learned as the illiterate as to the supposed danger of cold bathing, when the body is bedewed with perspiration. The practice of Priessnitz, and of ancient and modern nations, shews with how little risk, and how much benefit, the body covered with sweat, may be plunged into cold water, or rolled in the snow. But the same holds true with the body freely perspiring from active exercise; provided there be no material structural alteration of the heart, lungs or great vessels; and the system is not in a state of decided fatigue or exhaustion. It is a customary thing for school-boys in the summer season, in the brief mid-day interval of their classes, to run to the bathing spots of rivers or canals, and plunge into the water in profuse perspiration. This the writer has done and hundreds of his school-fellows, hundreds of times, not only without any bad effects but with great advantage. Animals when pursuing their prey, or escaping from their pursuers, invariably take through all opposing waters, and emerge from the bath not only unharmed but invigorated. This aquatic hardihood may, with a very little preparation, be safely tested throughout the severest weather of winter, if a smart walk be taken after, as well as before it. But this is counsel only to the strong in limb and valiant in heart. Those with whom it agrees will not soon regret the recommendation or decline the practice.

In the water cure treatment, before taking the cold bath, the temperature of the body is duly raised, the circulation equalized, and visceral irritation soothed by the wet sheet fomentation; much more rarely now, and very properly so, by the sweating blanket. The shock is thus more general and the reaction more complete. The strength, spirits and appetite are all simultaneously increased. The early morning is the best time for this bath: but it may be repeated with great benefit more than once during the day, if the immersion be but momentary, and the system possessed of tolerable vigor. The patient must never remain in the bath until he feels chilly except under febrile excitement. The more active exercise while in the bath, as by swimming, the better. Under severe crisis, as well as in the bodily conditions formerly mentioned, cold bathing for its stimulant effect, is obviously improper.

THE HIP BATH.

Had Priessnitz done nothing else than develope the manifold and manifest advantages of this energetic remedy, he would still have done enough to entitle him to the lasting gratitude of posterity. Its powerful aid is had recourse too, to accomplish two opposite intentions.

I. As a tonic, stimulant, solvent, anti-spasmodic, and anodyne, in obstruction, engorgements, chronic irritation, and acute inflammations of the digestive apparatus, and of the pelvic viscera.

II. As a powerful derivative in acute and chronic affections of the heart, lungs, and brain.

According as either of these intentions is to be accomplished, so is the temperature, duration, and frequency of the bath to be varied. The person is covered while in the bath, all except the parts immersed. The water usually reaches the height of the navel, and the tub is only large enough to admit of free motion of the hands and arms for rubbing. The temperatures varies from 40 deg. to 60 deg. Fahrenheit, and the duration in it from a quarter of an hour to a full hour or longer. While in the bath, the patient to employ himself in thoroughly rubbing the belly, sides and loins, first with one hand and then with the other. Very soon the first chill of the bath subsides, and the heat of the water by degrees equalizes itself to nearly that of the body. If the stay in it therefore be prolonged, it is necessary to change the water once or oftener.

To fulfil the first intention specified, the temperature must approach the higher range given, that is near 60 deg., and its duration need not exceed 20 min.; but the bath should be repeated several times a day; on quitting it, reaction is further promoted with a hard friction with a coarse dry towel. Two of such baths per diem is a usual dose; in special cases, and for a short time, five or six a day may be taken as in severe constipation, chronic diarrhœa, dysentery, passive uterine hœmorrhage, uterine and vesical catarrh of a profuse character.

To fulfill the second indication, the water must be colder, the duration in it more prolonged, and the friction more severe. To aid its derivative effect, it is sometimes necessary to apply evaporating bandages to the head or chest, according to the existing disease to be combatted.

The best time for the administration of hip baths is between meal hours, when the stomach is not loaded; and the indispensable exercise can be made both to precede and to succeed the bath. The muscularity of hip there prolonged use induces, is very striking.

THE HEAD BATH.

This is a highly energetic remedy used in determinations of blood to the head, the delirium of fever (the patient being in the wet sheet,) headaches, convulsions, epilepsy, rheumatism of the scalp neuralgia, ophthalmic diseases, deafness, loss of smell and taste.

The patient lies on a rug or matress, and the back of the head is placed in a shallow basin containing from two to four inches depth of cold water. Each side of the head is also placed in the water in succession. The duration of the bath may be from five minutes to half an hour. At the conclusion the head is to be well dried and rubbed with a towel. This friction, however, is only allowable where there is no inflammatory action to combat.

The frequent and prolonged effusion of cold water upon the head, even to the production of intense pain from the chill, is one of the most powerful tonics of the nervous centres; and has been long our main anchor of hope, when combating with the old weapons, Hypocondriasis and other nervous affections. This constitutes a very essential element of the treatment of these complaints by a reverend practitioner in London of some celebrity.

THE FOOT BATH.

Unless in sprains and local injuries, this is chiefly, if not entirely, used as a derivative bath in affections of the head, chest, stomach, intestines and uterus. For this purpose the water should be from two to six inches deep, and the whole foot, sole, ancles and legs are to be thoroughly rubbed with firm hands, from ten minutes to half an hour; changing the water as it gets hot. The feet must be warmed by exercise both before and after the bath. This is the remedy, par excellence for habitual cold feet. It is an effectual controller of uterine hœmorrhage. If the determination of blood to higher organs still continues, wet compresses to them (uncovered by dry bandages) will be occasionally necessary.

PARTIAL BATHS.

The application of partial baths, adapted to different members of the body, has been considered as a proof of Priessnitz's admirable tact and knowledge of derivation. If the bandages in question are heating bandages, i. e. wet compresses covered by dry ones, so as to prevent evaporation, then the proof is valid, and the praise deserved. For the nature and object of such a bandage is to determine a molimen of the fluids to the part whereon it is applied; of course diverting them—deriving them from neighboring localities, and at their expense. This is at least the received theory of derivation or counter-irritation. But if, as we take it, Priessnitz's practice is to place a higher part of an affected member—as an elbow or a knee in the case of an injury in the hand or foot—in a constant cold bath, or to cover it with compresses constantly renewed before they evaporate or get warm; his object then is, Sedation—to lessen the molimen hœmorrhagicum to the part in another way, and shews his conceptions of the varied operation of water, and his strong inductive powers in turning them to practical account—a tact and discrimination greater than in the other case at least; as using the better means to attain the same end. The leg-bath, or arm-bath, when ulcers, fixed pains, skin diseases, nodes, &c., affect any of the extremities, are highly useful applications: according to the duration of the both and the temperature of the water, a sedative, stimulant, revulsive or anodyne effect is produced. The ear-bath and finger-bath, belong to the same category.

We have received a new exchange—the "Gem of Science,"—a neat semi-monthly, devoted to general science and literature. It is truly what its name indicates, and we are highly pleased with the order and value of its contents. It is published semi-monthly, by Sanford & Brothers, at the cheap rate of ONE DOLLAR per annum, in advance. Address Sanford & Brothers, post-paid, Ann Arbor, Michigan.

THE

SAINT LOUIS MAGNET.

VOL. II. SAINT LOUIS, OCTOBER 1, 1846. NO. 6.

RENOVATION OF THE ANIMAL SYSTEM.

It is a generally admitted physiological fact, that the animal body is renovated once at least within seven years. The length of time required to renovate the system is probably very materially modified by the age and health of the animal. The youth, whose system is healthy, active, and buoyant, is no doubt thrown off and replenished more rapidly than the aged, whose systems act slower, and more sluggish, and are less healthy. Hence, the aged become stiff and inactive, while the youth are suple and more active.

There may be instances, however, in which disease—a spell of sickness materially facilities the renovating forces; at least the decomposing force, which throws off the worn out matter. This causes patients to waste away very rapidly, and soon become very much diminished in size and strength.

It is a law of matter, to be constantly changing its form, size, weight, color, motion, &c., and position in space. These changes are effects, and the causes which produce them are the positive and negative forces of nature, or the attractive and repulsive. The one attracts bodies and unites them together, and the other separates them, and rends them asunder. The least acquaintance with the science of chemistry impresses us, with the remarkable susceptibility of molecular or dissolved matter, to combine in a great variety of proportions, producing new forms, with a modification of all the attributes, or properties of matter. This law of change is as inherent in the constitution of matter as form, size, &c., or any other property of matter.

We wish here, in few words, to impress upon the minds of our readers the intelligence of matter. We may take two kinds of matter in a dissolved state, and they will combine in certain proportions, and produce a different substance; and then we may take a third substance in a proper dissolved state, and add to this compound, and the two first will separate, and one or the other will unite with the last added substance and form a different compound; and the rejected substance will be precipitated, or thrown down. Here we observe a glimmer of intelligence—a power inherent in matter to choose. Was it not true that intelligence is inherent in the constitution of matter, and consequently possessed by the very infinitesimal particles of matter, it never could be manifested through the congregated masses of matter. We might as well talk about education creating mind, as that a peculiar organization creates mind or intelligence. Education cannot create anything it only cultivates or improves that which is all ready created. The same is true of organization, it only develops mind or intelligence in a peculiar manner; it does not create it. Mind or intelligence is inherent in the constitution of matter, and is inseperably connected with it, and every new organization manifests a portion of this universal mind, in a modified form peculiar to itself. Hence, the solution of the variety of minds, and the unity of the whole.

This renovating power in the animal economy is carried on through the agency of this general intelligence. The raw, or gross material is taken into the mouth, masticated, and passed into the stomach, where it is dissolved by a chemical process, and properly prepared to be distributed throughout the body, and deposited in accordance with its chemico-electrical affinity. Those molecules, or infinitesimal particles of matter, which were the constituent particles of the raw material which was thrown into the stomach, and dissolved, are recombined in a variety of proportions, and suited to replenish the various organs and systems of the animal economy. Thus we perceive that the osseous system, the muscular system, and the nervous system, and every organ pertaining to the body—their secretions and excretions are all manufactured and replenished from the same material. Hence, the sublime fact fully develops itself, that nature is the master mechanic, for out of one simple substance she manufactures all her tools, and out of the same simple substance with these tools, she builds up and sustains the whole variety of nature.

In our next article we will show how these particles of matter, after they have subserved their purpose in the system and become worn out, are thrown off. And in due time we will not forget to show that the mind is subject to the same physiological laws.

[*Continued.*]

FRANKLIN, Mo., August 20th 1846.

Dr. T. J. McNair:

DEAR SIR—While in your office a few weeks since, I witnessed an examination of a patient, by Mr. C. EAKER, Clairvoyant, which I deem worthy the notice of your readers, provided you think proper to give it a place in your interesting pamphlet, "The Magnet." And what seems to make it still more interesting, the individual examined was two hundred miles from the examiner. The reason why I had the individual examined, were the following: first, because I had undertaken to cure the patient, and thought it might be of benefit to both of us: and secondiy, because I thought it was a case beyond the reach of fraud, and would furnish the most demonstrative evidence either against or in favor of the science; at least so far as I was concerned, the circumstances were these: Sir, I was a stranger both to you and Mr. Eaker, or at least you were both strangers to me, and I have every reason to believe that you never had even heard of the individual, whom I intended to have examined, but if my memory serve me rightly, I told you that I wished an individual examined, and immediately you called Mr. Eaker in, and told him that I wished to be examined; without anything more of importance being said, you and he took your seats, and in about three minutes and one half, the magnetised seemed to be in the mesmeric sleep. When you bound his eyes about with a thick handkerchief, and requested him to travel with me. I then took hold of his hand, and placed my mind upon the patient, but in a moment withdrew it again, to speak to you concerning the propriety of noting down the language of the somnambulist, and he immediately remarked why he has been there, but he has came back again, seeming to have followed my mind to the place in a few seconds.

So soon as you were ready to write, I placed my mind upon the patient again, and in about one fourth of a minute he said, "Yes, yes! I see her, I see her, a young lady; why, said he, that is a long way off, two hundred miles or upward. And then said I, see an old lady and an old gentleman there; these three compose the family. Then looking at the patient again, he said she was dsseased. We hope to be pardoned here for not giving in detail the examination. It would be interesting to your readers, but I shall forbear, least I spin on too far. He spoke of the age of the patient, and the length of time she had been afflicted; spoke of the origin of the disease, traced it from one part of the system to another, until finally he spoke boldly the name of the disease. He described the various symptoms as accurately and as minutely as an attendant physician could have done; and really, I thought more so. After the examination was ended, the sleeping doctor made out a prescription, which he said if strictly attended to, would effect a permanent cure. All has been well attended to, and we sanguinely hope the cure performed. After he was done prescribing for the patient, I requested you to ask him if the patient could be mesmerized; he answered that she could partially, but not thoroughly. She could be put to sleep, but would scare and rouse up again. I then wished to know if I could be mesmerized; he answered "No!" and said that I was a good operator. I then wished to know if I could mesmerize the patient; and when asked the question, the young gentleman laughed, and said "certainly," I could come as near as any one else, for I had done it, which was even so in the partial manner first described. You then asked him what my profession was, and he answered that I was preparing to practice medicine. You then asked him if that was all, he then said he would look again, and then answered, "why no, no, no, he does this way," (lifting his hand with an undulating motion,) he talks to the people, you then asked him what he meant by talking to the people? he replied why he preaches what makes speeches, said you; no, I tell you, said he, "a preacher." There was not the least variation from the fact, as I knew them to exist in the aforementioned cases, by this clairvoyant examination. These things seem marvellous in our eyes, but they are true; therefore we cannot discard them, or distrust the science, because we cannot understand them quite so well as simple addition. We might discard many important facts upon the same principle.

Yours, in haste,

J. C. HEBERLING.

We have made a number of examinations under similar circumstances, with perfect success.

* * *

St. Louis, September 13th, 1846.

T. J. McNair, Editor of the Magnet:

Dear Sir—I am among the number who dare add my testimony to the truth of the science of Animal Magnetism. During the past four years I have studied and experimented much upon that science; not, however, with a view of the accumulation of wealth, for in all cases I have refused compensation for my services, nor of practicing deception or fraud upon the public, as some of the *learned* doctors have intimated; but my object has been not only to satisfy my own curiosity, but also to search into the hidden mysteries of this wonderful science, and if possible to see how far it may be used as a remedial agent, in smoothing our pathway down to the grave. Unaided by science, (for I make no pretensions in that way,) but by the aid of Clairvoyance, I have been able to accomplish wonders. I have not only been enabled to direct the spirit of the Clairvoyant through the fields of unlimited space, and bring correct intelligence from distant lands, in a very short space of time; but I have through this agent rescued many from the very jaws of death, and restored them to health and happiness.

True, in some cases, I have cheated the doctor out of his patient, but then he should console himself upon the reflection that although he has lost a patient, the grave, too, has been robbed of a victim.

But why do the scientific world discard Animal Magnetism? generally they do not; but suppose they did, it would be none the less true. But the reason so many physicians deny its truth, is because it is against their interest to practice it.

A certain learned doctor in this city who had been using Magnetism in his practice for more than twelve months, stated to me that he could not live by the practice; for instance, said he, "a gentlemen of this city for several years past has paid me about a hundred dollars a year for attending his wife for the nervous headache. I tried Magnetism and affected a perfect cure the first time, consequently my services were dispensed with for the balance of the year, and instead of getting my hundred dollars, as usual, I got only five dollars, and in this single case I am looser 95 dollars. "Well, Doctor," said I, an honest confession is good for the soul, and although you cannot live by such a practice, still your patient can.

But there is another reason why so many of our physicians do not, or cannot believe in this strange science, and that is the want of capacity to believe. Their little heads are already so full of learning and science that there is no room for a new idea to be crowded in edgeways, and therefore they cannot believe. But show me a physician or any other man, with a full development of intellectual organs, and I will show you a believer in Animal Magnetism; that is, if he has had an opportunity to examine the subject, and has not an overshare of self-conceit, which is seldom the case with men of good intellects. But, Sir, I have already protracted my remarks further than I intended. My object is to furnish you with some facts that have grown out of my own experiments. For the present, however, one case will suffice, and here you have it.

About the middle of December, 1844, Mrs. SEYMOUR, of the Missouri Hotel, came to my house on Green street, and with tears in her eyes, she stated that their family physician, Dr. MERRICK, had that morning informed her that SUSAN SEYMOUR, (a young lady of 17 years of age, who had been in a declining state for more than eight months,) was beyond the reach of medical aid, and could not live more than six weeks from that time. Her complaint was consumption, and that firmly seated. She added that the Doctor's advice was to stop giving her medicine, and let her down as *easy* as possible, for die she must, and that before the first day of February next.

And now, said she, turning to me, I have come to see if you can do anything for Susan, with Mesmerism, all other hopes have failed, and *I can't give her up;* no, no, I can't give her up! and Mesmerism is now the last and only hope; will you try it? I remarked to her that it was hardly giving Mesmerism a fair chance to try it upon one so far gone. She, however, prevailed, and I took the best Clairvoyant I knew of in the city, and went over to the Missouri Hotel, where we found the young lady above mentioned. Soon after my Clairvoyant was in the mesmeric sleep, Dr. Merrick came into the room, stated that he was an unbeliever in Mesmerism; but, said he, if that young man can tell or describe the disease of Susan Seymour, then I will know that Mesmerism or Clairvoyance is true; for, said he, no person living except myself knows her disease, or the particular diseases with which she is afflicted. He then took his pencil and wrote down all the particulars of her complaint, folded it up and put it in his pocket. After which the Clairvoyant began his examination, which lasted more than two hours, but which resulted in convincing the doctor of the truth of Clairvoyance, for he stated that the lungs, liver and spleen were all diseased. In a word, his description exactly coroborated all that the Doctor had previously written; not only so, he described all the symptoms of her disease without a single error or mistake. He then made a prescription for her, which more than all seemed to astonish those who were present, and particularly the Doctor; for, said he, if all the physicians of St. Louis were present, and could have known the particulars of her case, as he has stated, then they could not have made a prescription so well adapted to her disease as the one made by him.

In addition to the medical prescription, the Clairvoyant directed me to mesmerize her once a day for three weeks, when he would examine her again. But before concluding his remark, he turned to the patient, and with no small share of severity, upbraided her for tight lacing, and told her that was the principle cause of her sickness, to all of which she plead guilty, and promised to do better for the future. The Doctor, after having witnessed the whole transaction, advised that the prescription should be carried out to the very letter. I immediately began Mesmerizing and giving the medicine as directed. The patient was not very susceptible, and therefore required more mesmerizing on that account. I generally spent one hour each day in mesmerizing her during the three weeks. But I never was able to produce the mesmeric sleep.

The result, however, was the same. It is not necessary, as many have supposed, that the subject should be thrown into the mesmeric sleep, in order to be benefitted by Mesmerism; for if that was the case, not one in twenty could drink at this healing fountain, and but few would be interested in promulgating this saving truth to the world. In a word, she began to mend from the very commencement, and before a single week had elapsed, the change was so great that Mrs. Seymour and Mrs. Webster, her sister, notwithstanding the Doctor's predictions, even expressed a hope of her recovery. And that was not a vain hope, for she continued daily to gain strength, and before the end of three weeks, she was able to walk to Market street from the Missouri Hotel. At the end of three weeks another Clairvoyant examination took place, which was equally satisfactory to all who were present. He not only told her all that she had done, but in a particular manner pointed out to her where she had varied from his prescription. And now, said he, addressing the patient, notwithstanding all that I said to you about tight lacing, you have not fully obeyed my instructions. I then remarked, that he must be mistaken in that particular. No, said he, I am not, for she has now got her corsets on, I can see them. She blushed, and owned the truth, it was even so she had them on, but, as she stated very loosely. He then made another prescription, quite different from the first, which with the assistance of a little more Mesmerism, soon restored her to perfect health. She is now a blooming, healthy woman—a living witness of the truth of the science of Animal Magnetism.

I have been thus particular in giving names, in order that any who may doubt the truth of my statements in this may enquire of those who were eye-witness, for I would not that any should be misled upon this subject, but desire that all should prove it as I have done. For I believe Mesmerism to be to the body what religion is to the soul. "A sovereign balm for every wound, a cordial for every fear.

Yours, respectfully,
CHARLES COLLINS.

* * *

ELECTRICITY.

In all the numerous experiments, already introduced in these various numbers, the affect visible has mostly been that of a certain tendency the excited bodies have had to coalesce with each other in some cases, and to recede in others, or have been instances of electrical attraction and repulsion. Upon a closer examination of the circumstances attending these experiments, it will be found that when two bodies are electrified equally, they will repel each other; and also that when one body only is electrified, it is attracted by all others of a conducting nature in its neighborhood. Thus it appears that two laws only govern all these phenomena, which Franklin gives thus :—The electric fluid repels itself, and attracts all other matter; therefore, bodies similarly electrified, that is, if both are electrified *plus*, or both *minns*, they repel each other, but if one body be electrified *plus*, and the other *minus*, they will attract each other, until the equilibrium be restored, when they become neutral. It may be thought that, in many instances, but one body is affected, and therefore the laws do not apply. For example :—

Ex. 30.—Suspend from the ceiling a string, and from this a feather, attached to a thread of silk. Hold towards it an excited glass tube, the feather will first adhere to it, then be repelled, and, if a finger be held near it, be attracted towards the finger. The attraction of the feather and tube is accounted for—they are differently electrified. The receding of the feather is also accounted for—for after touching each other they are similarly electrified; but why the feather should seek the finger is not so apparent. It arises from a cause, which, instead of militating against the truth of Franklin's laws, does but prove there general applicability. When a body of any kind is electrified, it affects and repels the electric fluid contained in all the bodies near it, and thus the overcharged feather drives away some portion of the fluid in the finger; in consequence of which the part of the finger nearest to it becomes negative, or in a different state from itself—therefore they are mutually attracted. The degree of this attraction is found to be in proportion to the square of their approximation towards each other, or as it is usually expressed, proportional inversely as the square of their distance—that is, if at an inch distance from each other, they attract with a force equal to one—at two inches the attractive force will be a quarter as much only —at three inches it will be one-ninth only—that is, three times three. The cause of attraction we leave until a future chapter explains the laws of electrical induction. At present we content ourselves with laying before our readers some of the best of the numerous experiments on this particular division of electrical sience.

Ex. 31.—Hang two feathers on silk strings from a stand, which will elevate them some inches above the table, and which stand has a glass leg, or support, to it; or still better than this, hang a string from the ceiling, and at the end of the string the two silk lines with feathers, so that they are not near any other object. Hold towards the excited feathers the glass rod. The two feathers will, at first, adhere to the glass rod, and soon afterwards be repelled from it, aud from each other.

Ex. 32.—Balance upon a rod of glass, terminated by a needle point, a delicate rod of wood, having a small disc of white paper, or a pith ball, at each end. Hold towards either end of this an excited glass rod—the end will be attracted by it. This forms a delicate, useful, and cheap electrometer.

Ex. 33.—Procure two stands, each formed of a foot which supports a glass rod, and upon this a brass wire hooked at the top, so that there may be hung to it a silk thread, bearing at each end a feather, to the one pair of feathers hold an excited glass rod—they will repel each other with positive electricity. Hold towards the other pair of feathers an excited stick of sealing wax—they will repel each other with negative electricity. Put the one stand near the other, as represented in the figure, and the one pair will attract the other—they being differently electrified.

Note.—A common sized stick of sealing wax is too small for this and similar experiments. The glass and sealing wax rods may be combined with advantage. Having procured a hollow glass tube, about two feet long and of one inch diameter, heat it gradually by a fire, until hot enough to melt sealing wax—then rub upon half of it a stick of red wax, until the surface of that half is completely and evenly covered with the wax. Hold it near the fire again, that the wax may settle into a smooth and glossy surface, and it will be complete. When to be excited the glass end only will require warming, the waxed part serving as a handle; so also, when the wax end is excited the glass may be held in the hand. To excite glass, rub it briskly with a black silk handkerchief—to excite sealing wax, rub it with a piece of flannel.

Ex. 34.—Tie twenty five linen threads together at each end, so that there may be about six inches distance from knot to knot, hang this by a wire loop fastened to one of the knots, to the conductor of the machine; upon charging the conductor, the threads will recede from each other, forming a curious balloon-shaped body.

Ex. 35.—Instead of tying the threads at both ends, let the lower end be loose, and upon turning the machine, they will form a brush.

Ex. 36.—*The Glass Feather.*—Procure a glass feather, as made at the fancy glass shops, and stick it into one of the holes on the upper side of the conductor, when the machine is put in motion the radiation of all the filaments of glass will offer a most elegant object.

Ex. 37.—*The Frightened Head of Hair.*—As a variation of the last experiment, the head of a doll is furnished with a wig of hair which is two or three inches long; upon electrifying this "each particular hair will stand on end" in the most grotesque manner, and thus it is with every person who is electrified, when on a glass legged stool. This ex-experiment becomes most effective because seen more conspicuously when the hair is of a grey color.

Ex. 38.—*Radiating Feathers.*—Let a metal ring be supported upon a glass pillar, and at six or eight equally-distant points, around this ring tie a thread (not silk) a few inches long, the other end of which bears a feather, where six are represented. Connect the metal ring with the conductor of the machine by a wire or chain, and the feathers being electrified will repel each other until they will stand at equal distances like the spokes of a wheel.

Ex. 39.—*Electric Fish.*—Cut a piece of very thin leaf brass (such as is called tinsel will do) with an obtuse angle at one end and an acute one at the other; present the large end towards an electrified conductor, and, when the brass is within its atmosphere let it go; it will then fix itself to the conductor by the apex of its obtuse angle, and, from its continual wavering motion, will appear to be animated.

Ex. 40.—*Flying Feather.*—Excite a glass tube, and hold towards it a very light and fleecy Feather, it will adhere to it for a moment, then be repelled in the most beautifully expanded form; if no object be near, it will gradually be attracted to the earth, but it may be driven in any direction round the room, by bringing the still excited glass near it, for it will be still repelled from the glass. It is evident that the feather in sailing along must not be suffered to deposit its electricity by touching any surrounding object.

Ex. 41.—*Animated Thread.*—Present a fine thread to an electrified conductor, when it is at a proper distance it will fly towards, and stick to the conductor, and convey the electric fluid from it to the hand; remove the thread to a small distance from the conductor, and it will fly backwards and forwards with great velocity, and in a very pleasing manner; present the same thread towards one that hangs from the conductor, they will attract and join each other. Bring the finger, or a brass ball, near these threads, the ball will repel that held by the hand, and attract that which is affixed to the conductor.

Ex. 42.—*Suspended Leaf.*—Hold towards the ball at the end of the conductor, a square thin leaf of brass or paper; upon turning the machine, it will leave the hand and be suspended with one of its points upwards between the hand and the conductor.

Ex. 43.—*The Moving Leaf.*—Move the hand round and at a uniform distance from the ball of the conductor, when the leaf of brass is suspended near it, and it will be seen to move with the hand in any direction which the latter may take.

Ex. 44.—*Dancing Images.*—To the end of the conductor, suspend a plate, made either of metal or wood, covered with tin foil, at a distance of three or four inches under this a similar plate, but one that is rather larger. Place on the lower plate any little figures cut out of paper or pith. Take care that the lower plate is supported upon some conducting substance; turn the machine, and the figures will raise themselves, and fly up and down between the two plates, forming a most ludicrous dance.

Ex. 45.—Support the lower plate upon a glass bottle, or other insulator, and although all the rest of the apparatus remains as before, yet the figures will not dance. The reason is this, the upper plate being charged by its connexion with the machine, the figures are attracted by it—they becoming charged and repelled by the upper, and attracted by the lower plate. When they touch this their charge is removed by that contact, and conveyed to the earth, while the figures jump up again, for a fresh supply, and thus they move alternately from the one to the other plate. When the lower plate, however, is insulated, the extra portion brought to it cannot escape, and it becomes charged in the same manner as the upper one—therefore the figures have no tendency to move between them.

Note.—If in cutting out the figure the head is heavier than the feet, it will dance head downwards—damping the feet in the mouth will usually remedy this, but this, at the same time, gives them a tendency to adhere to the upper plate, while wetting the head makes them dance on the lower plate. Female figures usually dance more regularly because of the weight of the lower part of the dress. In all the figures the head should be somewhat pointed, either by the adjunct of a steeple-crowned hat, or something similar put upon it.

Ex. 46.—*Dancing Pith Balls.*—Place upon the lower stand, (mentioned in Experiment 44,) six or eight balls of the pith of elder, and cover them over with a dry tumbler. Hang to the conductor a chain, which touches this tumbler; upon turning the machine, although glass intervenes between the exciting power and the balls acted upon, yet the balls will fly rapidly up and down within the glass tumbler. In this instance, the outer part of the glass is by contact electrified positively; the inner part, therefore, will be by induction, (afterwards to be explained,) electrified negatively; and the balls are flying up and down to supply the deficiency of the glass—each ball coming to deposit its load, and flying down again for another.

Ex. 47—The dancing pith ball experiment may be reversed thus: Fasten to the conductor a chain, as before. Put it in a dry tumbler, and turn the machine. After a few turns the tumbler will be charged withinside with positive electricity. Place upon a table, or a metal plate, a few pith balls, and cover them over with the charged tumbler. They will now jump up and down, each one conveying some of the fluid away from the glass, and not towards it as in the latter instance. They continue to dance long after the machine ceases to act, and when their motion has ceased altogether, it may be renewed by merely putting the hand upon the outside of the glass.

To make Pith and Cork Balls.—Procure some of the thick young shoots of the common elder-tree, cut them into lengths between the joints, and push out the pith of each length by a smooth stick, as near as possible the size of the hole where the pith is, and dry it for use. When wanted for balls, cut out each ball moderately true with a pen knife, and to round them more perfectly, and take off the rough edges, roll them very gently, with a circular motion, on a smooth table, and they will be fit for use. Cork balls may be cut in the same manner, but to make them smooth each one must be placed upon the point of a needle, and turned round two or three times in the flame of a candle, or should the blackness thereby occasioned be an objection they may be rubbed with sand paper.

Ex. 48.—*Electric Bells.*—The apparatus thus called is of various forms—that put into action by attraction is represented. It consists of a rod, or wire, having a hook to hang it up by, and a small chain at each end, terminated by a bell. There are, also, at three other parts depending from it three silk threads—one terminated by a third bell, the other two by metal clappers. The third bell, it will be observed, has a chain appended to it which reaches the ground. When this is suspended from the conductor, the wire at top, and bells at the sides, become electrified—these latter, therefore, attract the clappers. They thus becoming charged recede till they touch the centre bell, and thus the motion of the clappers, from one to the other, produces the sound of ringing.

[To be continued.]

DE OBFUSCATIONIBUS

(*Continued.*)

The next case I design to give you is a very brief one, and is taken from some fragments of the lost writings of Proclus a Platonic Philosopher of the fifth century, a celebrated commentator upon Plato, whose admirers believe him to have been of the "Corypheau" class of philosophers, and cannot enough express their admiration of him. It seems that a fragment of a work, itself lost, has been preserved, recording some remarkable cases of resuscitation from apparent death. I wonder how they escaped Dr. Dendey, who does not allude to them. After enumerating several cases, Proclus adds—" that it is possible for the soul to depart from, and re-enter the body, is evident from him who, according to Clearchus, used a soul-attracting wand on a sleeping lad"— * * * " For, striking the lad with a wand, he drew out, and, as it were, led his soul (away) for the purpose of evincing that the body was immoveable when the soul was at a distance from it, and that it was preserved uninjured; but the soul being again led into the body, by means of the wand, after its entrance related every particular. From this circumstance, therefore, both the spectators and Aristotle were persuaded that the soul is seperate from the body."

If Mesmerism be true, we may see this experiment repeated almost any day we please.

I am a little puzzled now to decide upon the mode of presenting the next evidences I have in view. They are, I think, rather more to the point in favor of Mesmerism than any others I have yet seen. I am not much acquainted with the publications of the Mesmerizers—have never read even Townsend's Facts—and do not know whether Iamblicus on the Mysteries has ever been appealed to by them or not. Some two or three years ago I wrote to a New York Editor, since diseased, and referred him to the work and also to Glanville's, but have never known whether my letter was received or *how* it was received. Iamblicus was a Platonic Philosopher of the fourth Century (died about 333). You know I make no pretensions to a scholar's knowledge of the learned men of old, but what I have been able to gather has been obtained, as Knickerbocker says this Continent was originally peopled, by accident.

It appears that Porphyry (another of the Alexanderian Platonic Squad of remarkable men) addressed a letter to an Egyptian priest *Anebo*, which, as I understand the matter, fell into the hands of Iamblicus, who answered it;—or, as some appear to suppose, Iamblicus wrote the letter himself. Be this as it may, it is sufficient here to notice that the letter proposes a series of questions respecting the mysteries of the Egyptians, Chaldeans and Assyrians, and the object of Iamblicus is to answer the questions. I am about to give you only some small portions of the work, and will begin with some extracts from the letter of Anebo.

"Since the ignorance of and deception about Divine Natures is impiety and impurity, and a scientific knowledge of the Gods is holy and beneficial, the ignorance of things honorable and beautiful will be darkness—but the knowledge of them will be light: and the former will fill men with evil through the want of erudition, and through audacity, while the latter will be the cause to them of every good. I wish you therefore to unfold to me the truth respecting these particulars.

"And, in the first place, I wish you to explain to me distinctly, what that is, which is effected in divination? For we frequently obtain a knowledge of future events through dreams, when we are asleep; not being at the time in tumultuous ecstasy, for the body is then quiescent; but we do not apprehend what then takes place in the same manner as when you are awake.

"Many, also, through enthusiasm and divine inspiration, predict future events, and are then in so wakeful a state, as to energize according to sense, and yet they are not conscious of the state they are in, or at least not so much as they were before." * * * * * *

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SWEDENBORG'S ANIMAL KINGDOM.

(*Continued.*)

If the reader can once succeed in apprehending it, there will be no danger of his letting it go again even among the perilous quicksands of modern experience. It is one of those truths that rests upon the facts within the range of the most ordinary observation, and require but little anatomical investigation to confirm and demonstrate them. It is visible in its ultimate effects during every action that we perform, and at every moment of our lives. Perhaps there is nothing in the history of physical science that is more illustrative of the native ignorance of the mind, or that better shews how far we have departed from the simplicity of nature than the manner in which this grand office of the lungs has been overlooked; particularly when coupled with the fact, that it should have required a great and peculiarly instructed genius, by an elaborate process, to place it once again under our mental vision. But nature is simple and easy; it is man that is difficult and perplexed. Not only in the lungs, but in the whole body, the primary office is disregarded, and the secondary substituted for it. It has been supposed that the lungs inspire simply to communicate certain elements of the air to the blood; and expire for no other end than to throw out by means of the returning air certain impurities from the blood. Under this view, their motion is only of use for other things, or instrumentally, and not as a thing in itself, or principally.

And yet it is not confined to the sphere in which these secondary offices of the lungs are performed, but pervades the abdomen as sensible as the chest, and according to the shewing of the experimentalists, extends also to the heart, the spinal marrow, and the head. It was therefore incumbent on the physiologist to shew what its function was in all the regions where it was present, and to declare its action as a universal cause, as well as its action as a particular cause. Now the motion itself which the lungs originate, is their grand product to the system: the inspiration and expiration of the air but one part of its necessary accompaniments, being performed in the chest alone. Granting that the inspiration and expiration of the air are the particular use of this motion in the chest, what then is the use of the rising and falling which the lungs communicate to the abdomen, the heart, the spinal marrow, and the brain?—What office, analogous to respiration does the motion of these parts communicate to the organs? It manifestly causes them all to respire, or to attract the various materials of their uses, as the lungs attract the air. For respiration is predicable of the whole system, as well as nutrition: otherwise the head would not be the head of the chest, nor the abdomen the abdomen of the chest; but the human body would be as disconnected, and as easily dissipated, as the systems that have been formed respecting it. The universal use, therefore, of the respiratory motion of the body, is to rouse every organ to the performance of its functions by an external tractive force exerted upon its common membranes; and by causing the gentle expansion of the whole mass, to enable the organ, according to its particular fabric, situation and connexion, to respire or attract such blood or fluid, and in such quantity, as its uses and wants require, and only such. Each organ, however, expands or contracts differently, according to the predicates just mentioned; the intestines, for instance, from articulation to articulation, to and fro; the kidneys, from their circumference to their sinuosity or hilus, and vice versa, the neighborhood of their pelvis being their most quiet station and centre of motion: and so forth. In a word, the expansion as a force assumes the whole form of the structure of each organ. In all cases the motion is synchronous in times and moments with the respiration of the lungs. The fluids in the organs follow the path of the expansion and contraction, and tend to the centre of motion, from which these motions begin, to which they return, and in which they terminate. The lungs, however, only supply the external moving life of the body; but were it not for them, the whole organism would simply exist in potency, or more properly speaking, would cease to be; or were it permeated by the blood of the heart,—a condition which can by no means be granted,—the latter would rule uncontrolled in all the members, subjugate their individualities, and not excite them to exercise any of the peculiar forces of which they are the forms. In a word, the whole man would be permanently in the fœtal state, forever inchoate and ineffective.

It need not surprise the members of the New Church that no writer before or since the time of Swedenborg should have seen the primary function of the lungs in the human body. For it is shewn in those wonderful theological treatises with which they are familiar, that the heart and lungs of the natural body correspond to the will and understanding of the spiritual man; and as the understanding or rational mind has hitherto brought out none of those truths which enable man spiritually to live, nor been an external cause co-operating with the Word as an internal cause in the work of regeneration, so it had in itself no ground from which to recognise the necessity of the above function in the human frame; but its lower chambers alone being opened, took cognizance only of the lower and relatively passive offices of its bodily correspondent, the lungs. Unwittingly it yielded up the sceptre of the body to the heart, and here again obeyed the law of correspondence. But the truth is that the lungs mediate between the brain and the body, precisely as the rational mind of man is intended to mediate between heaven and earth.

[*Continued.*]

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[From the Water Cure Advocate.]

MODES OF USING THE WATER CURE.

THE DOUCHE.

This remedy belongs exclusively to the treatment of chronic diseases. As it is the most powerful of all the water-cure processes of its class—the most powerful when properly indicated and judiciously applied, to exalt the energies of the organism, to complete what the other parts of the treatment might fail to effect, namely, their conversion into acute diseases, and their cure by a *crises*;—so when misapplied—when the true pathological condition of the patient is not determined—when fever is present, when there is disease of the blood-vessel, heart or brain, or the organic nerves are paralyzed, it is the most pregnant with mischief.

The Douche is the strongest local stimulant of the vascular and nervous systems. Inducing a strong reaction and determination to the surface, it tends pre-eminently to dissipate the remnant of chronic engorgements of the mucuous tissues, and visceral congestions of all kinds; but after other remedial means have laid the foundation of recovery—resuscitating the energies of the whole organism, exhilirating the spirits and quickening the senses, it is very intelligible how it should facilitate and hasten the arrival of the crisis. The whole secreting and excreting apparatus *seem* to take a new activity; and their altered products *seem* as if the elimination from the system of every thing morbid effete that had resisted the usual decompositions and transformations.

The Douche is a column of water of variable thickness descending from a variable height; from three to six inches in its usual diameter, and from ten to twenty feet its ordinary fall. Its effect is determined by the state of the body, the force of the fall, and the coldness of the water. To insure its good effects, it should be taken at the time of the highest bodily activity and vigor, as early in the morning in the stronger, and between breakfast and dinner in the weaker—in both cases always premising smart exercise short of fatigue. Active exercise is especially necessary after the douche. The reason that necessitates this forbids the drinking of much cold water at this particular time of the day, at least till reaction be fully established.

The average duration of the douche is from three to ten minutes; the uninitiated should never exceed the former. It is usual to commence this bath by receiving it on the palms of the hands, and washing the face, head and chest. The shoulders, neck, spine, loins, hips, and extremities are then subjected to the powerful stream; avoiding the stomach pit and the abdomen. The hands are sometimes held up and spread above the head to protect it from the fall of water; allowing the stream to act as a shower bath. In *local* complaints, as palsies, sprains, tumors, the affected parts are particularly subjected to the influence of the douche. The bath is highly enjoyed, and always gladsomely anticipated—a proof that it leaves no ungrateful reminiscences—which is much more than can be said for any of the *old* modes of cure.

In cases where this measure is strongly indicated, two short douches per diem are more advantageous than one prolonged one.

THE WET SHEET.

This application is used for the two-fold purpose of increasing or diminishing the animal temperature; in either case it was equally *anodye* and *anti-phlogistic*—soothing aches and irritation—removing languor and fatigue—tranquilizing the pulse, and subduing fever. It opens the pores, favors cutaneous transudation, and aids the elimination of effete elements and morbid materials. Hence the intolerable odor sometimes exhaled from the sheets; the thick coating of slimy matter with which they are varnished; the debris, smell, and color of medicines and ointments long before used deposited in them; and the eruptions that soon appear upon the skin. The fluids repelled from the surface by the first chill return with a brisker circulation: the escape of caloric is prevented by the covering: and the moisture of the sheets is converted into vapor. According to the delicacy of constitution, and the feebleness of the reactive power, the heat of the water and the weight of the covering must be increased. The imbibition of water by the body in this and other processes is manifested by very *unequivocal* symptoms. *This* origin of the effect in question, in the wet sheet at least, is a *legitimate* inference.

The wet sheet is Priessnitz's greatest discovery, and far outstrips all other therapeutical improvements ever made in the healing art. This is destined to be by-and-bye the universal domestic remedy used by mothers and nurses in the outbreak of all illnesses; and will supersede, in nine cases in ten both the employment of medicine and the attendance of the physician. With every water-cured person its efficacy will be an article of *faith* that no arguments will stagger, and its practice in every emergency a source of confidence that no authority will baffle. Henceforth the name of Priessnitz will be a household-word and a grateful posterity will embalm his memory. Few are the complaints in young or old in which this remedy will not be hailed as one of the best boons ever given by Heaven to suffering mortals. This language is strong, and may be called enthusiastic. But we appeal to those who have tested the powers of the wet-sheet fomentation, whether our meed of praise is commensurate with its merits. In weariness and watching—in fatigue and cold—in restlessness and anguish—in acute diseases and in chronic ailments—in fevers and inflammations—in shivered brain—in worn-out stomachs and palsied bowels—in irritated skin and broken bones—in quelling morbid heat and soothing morbid sensibility—in the quiet routine of home and the bustle of travel abroad—in infancy and in age—in the weak and in the strong—in cottages and in palaces—in courts and in camps—in hospitals and in prisons—in all climates and seasons—shivering at the poles and scorching in the tropics—in all the multiform ills that flesh is heir to—the wet sheet will be the first remedial resource of the sick, and the last earthly refuge of the dying.

The wet sheet is applied in the following way: A very thick blanket is first spread upon a mattress; a sheet of coarse linen is then wrung out on a pole; this is smoothly spread over the blanket the patient then reclines at full length, and has the sheet wrapped round him, fitting it closely about the neck, and securely covering the feet. The blanket is then with equal care tucked under the neck and shoulders, the trunk and limbs of one side, and then on the other. This "packing" which resembles a compact bale of goods, is then completed by a load of additional blankets and coverings, or preferably by a down feather-bed, which is well tucked in from the neck to the feet. In this state the patient is allowed to remain from half an hour to an hour. The first impression isdisagreeable but is only for a minute or two; and is succeeded by a soothing freshness heightening into a delicious glow; which would end in perspiratton if prolonged. On being unpacked from this envelopment, the patient takes the cold or tepid half-bath or full-bath, and is well rubbed in the water by an attendant for a longer or shorter time, himself assisting in the operation. He then dresses quickly and goes out to his customary walk and water drinking. This process is usually gone through the first thing in the morning, and commences the daily routine of treatment. It is repeated or not in the subsequent parts of the day, according as it is indicated The sensation of the patient will often be the monitors for his extrication, and the inducement for its repetition or cessation. When the object is to quell fever, the sheet must be changed every quarter of an hour or half hour, or as often as may be necessary to bring about a cool surface. When the due abstraction of heat and reduction of fever is effected, the patient is then put into a slightly tepid bath, and well rubbed.

If determinations to the head occur during this process, cold applications to the scalp are to be constantly renewed as they get warm. If the feet or legs continue cold too long, they may be kept out of the envelopment, and wrapped in flannel.

The fallacy of catching cold from damp beds was long ago sufficiently exposed by one of the shrewdest and ablest practitioners of his day, Dr. Heberden, and will be found in a quotation in another part of the volume. The soundness of this judgment cannot *now* be questioned, as the innocuousness of such exposure is confirmed by all the facts of Priessnitz's extensive experience, and by those of his numerous followers.

[From the Transcript.]

HUMAN MAGNETISM.

Mr. Editor:—As this all-absorbing theme appears to be the order of the day, at present, we hope it will not be out of order to submit a few thoughts upon the subject, for public consideration, through the medium of your paper, together with some facts which occurred a few evenings since under our own observation. A number of young gentlemen of this city, on one evening of last week assembled for the purpose of witnessing, privately, an exhibition of some of the wonders of the above science. The experiments were conducted by a Mr. Keely, who has been engaged for the past week, in public lecturing and demonstrating on Human Magnetism. Mr. K., by the way, appears to be a man of considerable intelligence, and much of a gentleman in his deportment. Each of the gentlemen assembled, was requested to submit to a trial of the process by which the Professor brings about this mysterious influence. After consent had been given, the magic coin was distributed, one piece being placed in the hands of each individual, and his eyes fixed closely upon it according to direction. He only succeeded, however, upon two of the persons present, one, a resident of this, and the other of a neighboring city. Upon the latter of whom I shall endeavor to give briefly the results of the experiments, which were truly astonishing, and looked upon with a great deal of interest.

The gentleman in question was a firm believer in the truth of the science, in its early and more undeveloped forms, as presented by those who first agitated it. He has also been frequently operated upon by clairvoyance demonstrators, but avered most positively, his conviction, that he could not be operated upon in the manner proposed by Mr. K., assigning as a reason, that his manner of operating was in direct opposition to an established and fundamental principle of the science, viz: That the natural senses of the subject (while under the influence) were entirely destroyed, and that he only saw, heard, tasted, &c., through the senses of the operator, consequently the subject could not see any person or things, which the operator did not first picture vividly in his imagination. After gazing, however, a few minutes upon the coin placed in hand, Mr. K. pronounced him fully under the magnetic influence. He requested him to rise to his feet and observed, that when he (Mr. K.) counted two, he would be compelled to open his eyes, and that he would be fully aroused mentally, but that his physical system would remain entirely under his control, which effect took place immediately after counting. He then went through his usual course of experiments illustrating the fact that he thus held such control: such as requiring his hands to be thrown upon his head and fastening them there, until he willed their relief, and numerous other experiments of the same character. Mr. K. then wished to know if he desired to see any friend, he replied he did, and named two relations, both of whom were brought immediately before his imagination, and a near one, who had been absent for five years. The scene which opened up at this imaginary meeting was indeed thrilling, we shall not attempt to describe it, as it would occupy too much space. The subject was then aroused, but still avered that he was not convinced as to the point in controversy, i. e., that Mr. K. could not bring vividly to his mind any person or scene, unless he (Mr. K.) first pictured clearly and distinctly such person or scene in his own (Mr. K.'s) imagination he was not convinced from the fact, that Mr. K. knew his relatives. Mr. K. then requested him to give his consent to be placed again under the influence, declaring that he would convince him beyond the possibility of a reasonable doubt. The gentleman refused at first, assigning as a reason, that he felt unwell and that he did not wish to go through the first process of looking at the coin as it was very fatiguing. Mr. K. remarked that although he felt perfectly relieved and fully aroused, yet his physical as well as mental powers were still under his control, here another controversy arose, and to settle the point, Mr. K. requested him to look him fully in the face; when he should command his hand to be fasted upon his head, and in spite of all the power and resolution he could sum up to resist it. He did so. He then required that after he should have counted four, the subject should pass fully under the influences—which he did, closing his eyes. He then required that his eyes should be opened and fixed upon his, which was done forthwith. He then asked him if he had any friend in any quarter of the world that he desired to see. He replied he had, and after naming him, was immediately introduced to one of the company, as that friend by Mr. K., who declared very impressively as he introduced him, that it was the person named. He immediately approached him shaking hands, in the most familiar manner, exhibiting most strikingly, and true to nature, all those agreeable emotions awakened, by the unexpected meeting of the warmest friends after a long absence. He conversed freely and familiarly for perhaps fifteen minutes, passing all the usual congratulations upon such occasions, made numerous enquiries in relation to his business—wished to know if he had seen any old friends while absent, the individual replied he had not. However in the course of the conversation, the name of an old friend was mentioned as the subject, upon which Mr. K. immediately draws his attention and introduced him to another person as such friend. He approached him in the same manner and conversed as before. These experiments were repeated with the most perfect satisfaction, until he had introduced him to every person in the room. He expressed the utmost pleasure and satisfaction at meeting so unexpectedly the many friends that surround him. There were, I think, twelve gentlemen in the room. Then in conclusion as a cap sheaf to the entertainments, Mr. K. was requested to draw his attention from the crowd for a short time, and see if he could be brought back into it, and single out each individual by their respective names, as he had been introduced to them. Mr. K. remarked that he was not absolutely certain the result would be perfectly satisfactory, as it was a class of experiments new to him, as well as to us, but that he was well convinced that satisfaction would be given, merely from inductions from well ascertained facts and other experiments, in the course of his practice, it was tried and the subject succeeded in every instance to the satisfaction of all.

AN INVESTIGATOR.

From the New York Beacon.

ODE TO NATURE.

O Nature, Nature, thou art sure,
Ever enduring to endure;
Thy laws eternal *must* abide,
Comprising all—there's none beside.
Thou art when rightly brought to view,
All self-supporting, just and true;
No power above thee, none below,
Can ever prove thine overthrow.
Ten thousand volumes closely wrote
Would not make up a single groat,
Compared with what the mind that's free,
Discerns, in thy variety.
Thine own intrinsic unborn laws,

Do constitute the great first cause,
And all the motions we behold,
Are by their influence controlled.
The varied forms of earth around,
By their creative power abound,
Life giving—bringing to decline,
To decompose, and recombine.
Thou art our parent, thou, our friend,
From thee we come—to thee we tend:
And all that in thy moulds are cast,
Reverts again to thee at last.
Something from nothing never came;
Thy lessons teach to man the same:
Nor wouldst thou e'er withhold the thought,
That substance never comes to naught.
No more existed—no more will,
Than what is now existing still:
And best philosophers confess,
There ne'er can be one atom less.
The Christian, Pagan, Turk and Jew,
May each his clashing creed pursue:
And all the varied forms of strife,
May have a transitory life;
But all the planets as they roll,
In thine embrace thou dost control;
And nought thereon can stay thy hand,
Nor thy minutest law withstand.
If man would but consider well,
The lessons thou to him canst tell,
And strive to know thee as thou art,
Thy richest stores thou wouldst impart.
Beyond the diamond set in gold,
Are hidden treasures, yet untold;
More to be sought, and still more rare,
Though jewels sparkle e'er so fair.
Without beginning, without end,
Thou dost upon thyself depend:
In turn thyself depends on thee,
Dependent thus, thou art, and free.

SPIRITUS.

THE

SAINT LOUIS MAGNET.

VOL. II. SAINT LOUIS, NOVEMBER 1, 1846. NO. 7.

RENOVATION OF THE ANIMAL SYSTEM.

We have shewn in our preceding article, that the stomach is the great laboratory of the animal body; and that the gross materials after being taken into that organ undergo a chemical change, which prepares them to become component parts of the various systems which compose the animal. This we may term the positive force, which builds up and sustains the living animal out of the food which is taken into the stomach.

Our next object is to call the attention to another force, (the negative,) which is as efficient in tearing down, or in other words, throwing off the worn out particles of matter, as the positive force is in building it up. Was it not for this latter force, the animal body would undoubtedly continue to increase in size as long as the animal remained healthy, and could obtain food to live on. These two forces are constantly active in the living body. One creates gross tangible forms out of minute particles of matter, and the other reduces these gross tangible forms back to minute particles of matter again. This seems to be the universal order of nature, which may be correctly represented by a circle, which has neither beginning nor ending. The ancient philosophers observing this simple fact in nature, would, naturally enough, represent eternity by a circle.

We find in all the operations of nature a disposition to change the forms and their positions in space. Hence, certain forms are destroyed by the animal, and the minute particles which composed these forms are converted into new forms—the human form—and after these minute particles have subserved their purpose in the human form—worn out, they are taken up by the absorbent vessels—the negative force, and thrown off, and are again condensed into new forms.

The earth is composed of minute or infinitesimal particles of matter, which are drawn from surrounding nature, and modified into earth upon the same principle, that earth is modified into vegetable matter, and vegetable matter into animal matter. The means by which etherial matter is condensed into earth is principally through the instrumentality of the vegetable and animal kingdoms. The atmosphere, or the electricity it contains, is inhaled or taken in through the leaves of the vegetable, and the lungs of the animal kingdom, by which means these two kingdoms are principally built up and sustained, and the death and decay of these two kingdoms in their turn build up and sustain the earth, or mineral kingdom. The vegetable and animal kingdoms, then, are to the earth what the stomach and digestive organs are to the animal, or the roots and leaves to the vegetable kingdom. All nature is alive to these two forces, the creators and destroyers of all forms, from the simplest object in nature to man himself. Hence, too, we observe there is no such thing as independence in nature; but one universal system of dependencies, which may properly be termed series.

A SUGGESTION.

In Nature there are fixed principles and motive powers acting in harmony, and in all inanimate matter there exist certain component parts, so in animated nature. We see the operation of the same principle of order and arrangement in the human system, we see a division of the general sustaining powers acting in perfect harmony when a person is in perfect health—the veinous, nervous, and another which has heretofore been unnoticed, which I shall term the Electro-Magnetic principle; these, when they perform their parts correctly, constitute a healthy action and general good health, when either performs its part in a disordered and uncertain manner, it produces a great change on the system, and consequently causes the other branches of our composition to become unhealthy in their action, and thus cause disease. Each of these principles are proportioned with accuracy and equality through the system, and any derangement in their acting or concentration to one point causes a very unhealthy state in the system, they are, when implanted in the system, like water in a vessel, when it is standing perfectly quiet, the same in all parts of the system on a true level; when excited, they, like the same vessel when agitated, the fluid flowing to the lowest parts of the vessel, causing a continual motion, and consequently irritation in the part where they concentrate their force.

The writer would suggest that this Electro-Magnetic property flows equally through the system, and any point where it is obstructed or hindered in its free circulation through the system, or when the system becomes overcharged with the Magnetic property and does not pass off as freely as nature requires, then the system becomes deranged, and an unhealthy action takes place. Nature has so ordered, that excess of blood passes off naturally through the pores, in the form of perspiration, yet we have not yet discovered in what way this Magnetic fluid escapes when the system becomes overcharged, and we come to the conclusion that its free egress is sometimes stopped and consequently pain is the result of a superabundance of this fluid concentrated to some point, thus causing rheumatic afflictions, as they are termed; yet, at the same time, it is nothing more than a flow of this fluid to some particular part of the system, where we find the pain is located, as in the circulating system, when it becomes inactive, or flows too freely to any part of the system, produces inflammation in that part by the pressure on the component parts of the body, when it is thus located, or stopped, so this magnetic influence becomes stopped in its free circulation, and causes pain in that portion of the system, and the organs becoming overcharged are not able to bear the burden and yield to the extra force heaped upon them, and become excited to such an extent that it causes pain in that part.

When the circulating system becomes thus deranged by a stoppage of its free circulation, all that is necessary to cause a restoration is to cause an equilibrium in the circulation of the blood throughout the system, and you at once remove the cause of the disease engendered by the stoppage.

The same principle should be adopted in the management of the magnetic fluid that is adopted in regard to the circulating system, to-wit: an equal flow of the magnetic fluid throughout the system. How is this to be accomplished? The system like the atmosphere in the summer, when heated, generates more electricity than it can contain naturally and passes off in lightning, thus causing a healthy state in the atmosphere, and we must see if we cannot contrive a method of passing off this accumulated fluid from the system to the extent required to produce healthy action in that branch of the system. I would suggest that an experiment be tried, as follows, that the patient be magnetised in the following manner, to-wit: that some five or six persons join hands and form a circle in which shall be the person afflicted, the poles of the battery shall then be united in the circle, causing the influence to be general throughout the ring formed by the persons who compose the circle, thus equalizing the influence of the fluid through all the persons. The excess of the influence is thus drawn from the patient, and by this means restored to health again. If my position be correct such will be the result, or at least the cause will be removed of the disease, and nothing is required to restore health more than nourishment to strengthen the circulating system which has become impaired by being overburdened.

There are many persons probably who are not sufficiently charged with the magnetic fluid, and thus a general debility ensues. When, for instance, there appears to be general languor and weakness in the system, it may be that it is caused by a deficit in this fluid; in such cases, if the physician could obtain a patient who is affected with Rheumatism, and a patient who is of the above described class, and magnetize them both at the same time by forming a circle through which the magnetic fluid shall pass equally. They may both be restored by equalizing the influence through both the systems, thus causing a healthy action throughout. There has no method been adopted by which magnetism can be measured and its strength tested, science may yet unfold some method by which the quantity can be known, which a system in a healthy state requires, in order to keep it in a healthy moving action. When such discovery is made, it will be as great a light to medical science as the principle of the circulation was, when it was discovered by Harvey, and the pulsation thereby regulated accordingly. So in the circulation of the magnetic fluid through the system, when we are able to know the quantity necessary to produce healthy action of nervous and muscular systems, magnetism is the motive power to them as the blood is to the healthy action of the whole body. It is this that gives all the power to the muscles, for when magnetised a person finds his muscles are strengthened to such a degree that they become like steel, and are as tenacious as iron, so much so that they will not yield without breaking; so when the passions are excited, they are nothing but the magnetic fluid put in extraordinary commotion, this causing muscular force and excitement through the whole system connected both with the nerves and muscles.

In cases of lunacy the magnetic fluid is concentrated to an alarming extent in the brain when the muscular system in general is entirely prostrated, and the whole system is debilitated and unhealthy, and by applying remedies to remove the concentrated fluid from the brain and cause a more general flow through the system, we remove the great cause of lunacy, and all that is required then, is the restoration by stimulants of the veinous system and digestive system, by remedies that are known as agents that will restore those to a healthy state and cause them to act in harmony with all the other branches of the system. The connexion between the different portions of the system are so distinct in themselves, yet so harmonious when they act in their proper spheres and form a junction with each other moving onward in a smooth even course, that it is extremely hard to ascertain which branch of the motive power in the system is affected, it requires great care and watchfulness to discern the right cause, and which of these principles is not acting in its proper sphere or which needs regulating, perhaps the cause may be in the first instance a derangement in the magnetic fluid and by being deranged for any length of time, it deranges the action of the other branches, consequently leading men astray in judging of the cause of the disease, thus the necessity of speedily consulting (those who ought by their profession to know) immediately and before the whole system has become changed by the original derangement of this one branch of the moving power of the system.

C. BAISTOW.

* * *

Dr. McNair, Editor of the St. Louis Magnet:

Dear Sir:—I have rather an interesting experiment in *Clairvoyance*, which I feel disposed to report to you; hoping, should you think it interesting to your many readers, that you may give it a place in your invaluable *Magnet*. I am inclined to think, that one of the principal reasons, why so many are still lingering in doubt in respect to Clairvoyance, is, that the friends of Mesmerism, and particularly Clairvoyance, have been too fearful or negligent, or both, in reporting the innumerable experiments, which have and are daily being made in Clairvoyance, for the scrutiny and reflection of the people. I plead guilty to the charge, and for the future shall try to do better. Indeed, I feel it obligatory upon me, as far as it is in my power, to present to the world those interesting facts, which come within my cognizance—facts, which I am compelled to believe, are destined to be woven into a new science—a science which will arouse the sensibilities—develop intelligence, and in short ameliorate the condition of mankind to a greater extent, than all other sciences together, which have preceded it. To the healing art it is, so far as my experience goes, without a parallel. The time is certainly coming when no patient will suffer himself to swallow thousands of poisonous and filthy *nostrums*—they will call to their aid Clairvoyance, and dispense with this insufficient, very dangerous, and wretchedly blind method of practice. It will not be long till every physician, of a deep reflecting and candid bent of mind, will have recourse to clairvoyance in all complicated and critical cases. The simple reasons upon which I base these assertions are, first: no physician can determine correctly internal diseases from external symptoms, especially where the internal diseases are of a very complex character, which is frequently the case; 2dly, if he could determine the disease correctly, he would find it still difficult to apply the proper remedies to remove the disease. Physicians are well aware that even in external derangements they have to make several experiments before they hit upon the proper medicine to remove the disease. And how frequently, while they are thus experimenting, the patient dies. It is well known, too, what will cure one patient will not cure another. When Clairvoyance is substituted for blind chance, then will a revolution take place in the science of medicine, which may well cause the world to rejoice.

Pardon this digression. The experiment, which I propose to give you at present is not connected with the healing art, although I have seldom used it for any other purpose than to relieve the sufferings of my fellow beings.

While spending a few weeks at my country residence, with my family, my brother visited me, and knowing that my wife was capable of being thrown into the Clairvoyant state, wished me to mesmerize her. This, for his satisfaction, I did. My brother then told me he had an experiment which he should like to see tried for the especial purpose of testing clairvoyance. My brother then stated the experiment, which was simply this : a lady near my brothers, which was some fifteen miles distant from my residence, had lost a book, which she suspected had been taken from her house. I directed my wife's mind to the lady's house, although at this distance, and then told her to examine the house critically and see if she could see the book. After setting for some time, as if in a deep reverie, she said she saw the book, which the lady thought was lost. I then asked her where the book was. She said it had slipped down in a small crack between the floor and wall, and that they would find it there. I can see it, she oberved, it has on a black cover.

My brother returned home, and feeling interested to know the result of the experiment, went immediately to the lady's, and requested her to examine her house and see if there was any crack between the wall and the floor. A short search discovered the crack, and, to my brother's astonishment, the book, just as my wife had stated.

I thought no more of the matter, till several days afterwards, when my brother revisited me on business, and informed me of the result of the experiment.

This experiment was made at the distance of fifteen miles from my residence, a place where my wife never had been, and was unacquainted with the parties, except my brother. The subject was not mentioned to her or myself until after I had put her to sleep; nor was there any means by which she could have become acquainted with the facts, save through clairvoyance. This experiment, having been so carefully guarded against deception by my brother, who was rather sceptical upon the subject, is one reason why I publish it for general consideration. Yours, &c., respectfully,

JOHN J. GRAMMAR.

* * *

ELECTRICITY.

[*Continued.*]

Ex. 49.—*Electric Swing.*—Balance a small figure upon two fine silk strings, and place it within three or four inches of a ball, which forms part of a conductor, while on the other side of the figure is a second ball connected with the ground. Upon putting the machine in action, the figure will vibrate from one to the other.

Ex. 50.—*The Electric Swing.*—Suspend a strip, or fine rod of glass upon a centre, (it may be hung up by silk,) and upon each end of it support a light figure of pith. Let one of the figures have no conducting substance under it, nor yet touch the conductor when swinging upwards; but let the other figure come against the ball of the conductor when it rises highest, and touch another ball connected with the ground when descending lowest; if put properly under the conductor of a machine it will vibrate up and down—the opposite figure only acting as a counterpoise to it.

Ex. 51.—*The Electrical Rope Dancer.*—Suspend from the ball of the conductor two thick wires, about a foot long. The upper wire is connected with the conductor by a small chain, or hook; the lower one hung to this, at the distance of two or three inches, by a silk thread at each end; the lower wire is also connected to the ground by a chain. Place on the lower wire a paper or pith figure, and upon putting the machine in action, it will move alternately and briskly between them.

Ex. 52.—*Electrical Spider.*—Cut out of a bit of cork the body of a spider: furnish it with eight white thread legs, and run through the body a long silk thread. Hold this up in one hand, so that it shall hang two or three inches from the side of the conductor, and hold the finger about the same distance beyond it—when the assistant turns the machine, the spider will fly backwards and forwards between the conductor and the finger.

Ex. 53.—*Spinning Sealing Wax.*—Fasten on to a thick wire a piece of sealing wax, about one inch long, by heating it, and thrusting the wire into it. Put the other end of the wire into a hole, either at the end or side of the conductor, so that the wax shall be at some distance off. Underneath where the wax is, either on the table or the floor, place a sheet of brown paper, merely to catch any drops which may fall when the wax is inflamed. Provide yourself also with a lighted candle, and a sheet of white paper. Direct your assistant, (for in this experiment you must have one,) to turn the machine, and stop it exactly at the time you may desire. Then standing near the wax, hold the white paper four or five inches from it, and light the sealing wax. When well lighted, blow it out, and at the same instant let the machine be turned, and exceedingly fine threads of wax will be thrown off, and collected on the white paper, as long as the wax remains melted. Stop the machine—light, and blow out the wax, and turn the machine as before—more of the filaments will be thrown off, and thus any quantity may be collected, and if scraped together by the point of a pin, it will resemble the finest wool, such as cannot be procured by any other means.

Ex. 54.—*The Electrical Pail.*—Suspend to the ball, which projects from the prime conductor, a small metal or wooden pail, having at the bottom of it a hole, so fine that water will pass only by drops Pour a little water into it, and when electrified, the water instead of dropping only will pass out in a stream, and this will divide itself into several streams, each of which in the dark will be beautifully luminous.

This experiment has been supposed to offer an explanation of the fiery rains mentioned in various authors, and is a corroboration of a fact, the utility of which we had once reason to congratulate ourselves upon being acquainted with. The circumstance was as follows: We were visiting a medical friend, and electrifying a lady for *gutta serena*, when a gentleman was brought in stunned by a fall from his horse; it was thought advisable to bleed him. The arm was tried; no blood would flow. The temporal artery; still without success. We suggested that electricity should be tried. He was placed on a chair, and that upon an insulating stool, and immediately the machine was put in action. The blood flowed from both orifices, and the gentleman recovered. Might not this fact be of use frequently in our hospitals? It is certainly very seldom, if ever applied to.

Ex. 55.—*Fiery Sponge.*—Suspend in like manner to the bucket a sponge dipped in water, and the luminous streams which issue from it will be more numerous and beautiful than even in the last example.

Ex. 56.—*Electric Planet.*—Suspend from the conductor of a machine a brass ring, about a foot in diameter, and underneath it, at about half an inch distance, a metalic plate connected with the ground. Place upon this plate, and within the ring, a very light hollow glass ball—turn the machine, and the little ball will describe an orbit around the ring, and turn at the same time about its own axis. The poles of its rotation are nearly at right angles to the plane of its orbit. We have not tried this experiment. Mr. Adams says, "that it requires considerable attention to make it succeed, as a small difference in the apparatus, or in the force of the machine, &c., will occasion a failure."

The above, together with the experiments formerly given, are the chief that are had recourse to for amusement. They are all to be explained by the principles of electrical attraction, which important law of the science has given rise to many instruments of paramount utility in pursuing electrical inquiries. The chief of these are known by the name of *Electrometers* and *Electroscopes*, the object of which is to measure either the quantity or intensity of accumulated electricity. The principal are as follows:

ELECTROMETERS.

The Quadrant Electrometer, was invented by Mr. Henry. It consists of an upright stem of wood or metal, terminated by a ball at the top, and bearing an arc of ivory, divided into degrees, as in a great circle: that is, containing 90 degrees in every quarter, beginning at the bottom with zero, and having 90 at an equal distance from the upper and the lower part of the semi-circle of ivory. In the centre of this is balanced a very thin rod of wood, with a pith ball at its outward point, as represented. The slender rod is capable of motion up and down. It is used in connection with a charged jar or battery, and by the pith ball and its stem rising to a certain height, it indicates the intensity of the charge within the bottle or battery. At the greatest charge of a Leyden jar it will rise to nearly 90 degrees, but in a battery seldom more than 60 or 70. It being impossible to charge a battery so highly as a single jar.

Sauseure's Bottle Electrometer.—It consists of a glass case or bottle, with a metal bottom, four pieces of tinfoil being pasted on the sides of the glass, in connection with the bottom; withinside the glass are two very fine silver wires, swinging freely in a loop above, and ending below in two small pith balls. The upper part of the instrument is a brass cap, terminated by a ball and a rod of three or four feet, made in joints for the sake of greater convenience, and pointed. This instrument when used is to be placed in some exposed situation, when an approaching storm or other cause indicates the electric fluid in the atmosphere to be disturbed. The silver threads by their divergence will show the degree and character of the fluid in contact with the instrument. When it is used in rainy weather, the upper part of the glass is covered with a hood, like an umbrella, to keep the glass dry, and consequently the electrometer insulated.

In the above electrometers, as well as in the Gold-leaf Electrometer, described in a former part, it will be seen, that however valuable they may be as indicating an extremely minute quantity of the electric fluid, yet for comparative and delicate experiments they all fail; because gravitation considerably influences the weight of the moveable parts at different altitudes. To remedy this inconvenience, Mr. Coulomb contrived his Tortion Electrometer. It consists of a fine metalic wire, one end of which is attached to a screw, and to the other is suspended a horizontal needle, composed of gumlac, or other non-conductor, and armed at one extremity with a gilt pith pall, counterpoised at the other end by an index. The conductor is a small wire, with a ball at each end, passing through the glass receiver, in which the needle is suspended, and having its lower ball opposed to that of the needle. By a screw, the two balls are brought into contact, and the index then points to zero, or the divided scale of degrees. On communicating a very feeble electrical power to the conductor, it transfers it to the moveable pith ball, and repels it to a certain number of degrees, proportional to the intensity of the acquired electricity, and measured by the power of portion which it exerts upon the fine wire. By experiments made with this electrometer, it would appear that the electrical powers follow the law of gravitation, in being *in the inverse ratio of the squares of the distances of the acting bodies.* In the most delicate construction of the instrument, a single silk-worm's thread is used instead of the wires.

DE OBFUSCATIONIBUS

(*Continued.*)

The letter then suggests doubts and difficulties as to the cause of this ecstasy, &c. whether it be divine or merely a result of the "passions of the soul"—and whether it may be said that the "soul generates the power which has an "imaginative perception of futurity, &c. &c. and rather argues "that a passion of the soul is the cause of divination * * * because the senses are occupied and fumigations are introduced and invocations employed; and likewise because, that not all men, but those that are more simple and young are adapted to prediction."

You will see by these questions that the writer had a desire for an explanation of some mystical communications, and that the difficulty had occurred to him as to their true cause, whether merely human or superhuman; and it is enough for my purpose at present to intimate that questions would not have been asked or answered unless there was at least supposed to be something that needed explanation.

If the answer prove to be wholly unsatisfactory and even absurd, yet it is worth considering that something was attempted to be explained, and we are now to see what that something was.

But before proceeding in the matter I feel obliged to refer to another part of the work of Iamblicus, in order that you may recognize a peculiar distinction stated by the author in as clear language as the subject will admit—the distinction between intuitive and acquired knowledge—between the reason and the understanding as it is now a days talked about, as if derived from the Germans, though much older than Plato's time. It is important to refer to it here because allusion is evidently made to it in the explanation that it is to follow, and the thing is very curious in itself and shows Iamblicus to have been a very clear-headed and a very pious man, considering that he was a heathen: He says, referring to the epistle of Arebo:

"In the first place then, you say, 'it must be granted that there are Gods.' But thus to speak, however, on this subject, is not right. For an innate knowledge of the Gods is co-existent with our very essence; and this knowledge is superior to all judgment and deliberate choice, and subsists before reasoning and demonstration * * * In truth, the contact with divinity" [let this be called the light of faith, and it will be clear to those who have it] "is not knowledge—for knowledge is, in a certain respect (distinguished or) separated from its object by a sense of *otherness*. Before the knowledge, which as one thing knows another, is the uniform connexion with divinity, and which is suspended from the Gods, is spontaneous and inseparable from them. Hence it is not proper to grant, *that there are Gods*, as if it might not be granted, nor to admit it as if it were (doubtful or) ambiguous—nor are we worthy to explore a question of this kind as if we had authority either to approve or reject it. We are, indeed comprehended in it, or rather we are filled by it, and we possess that very thing which we are, in knowing the Gods."

It is singular, let me say, that Faust's answer to Margaret's inquiry as to his faith is very precisely expressed in this passage—too exactly, as it appears to me, not to have been suggested to Goethe by it. All critics agree that the answer of Faust is one of the most sublime passages in modern literature; so says Mrs. Austin at all events, and she is a competent judge.

Now it is from a reference to the peculiar kind of knowledge here described that the explanation of divination is derived by Iamblicus—for he says, further, that this intuitive knowledge will be assimilated to that of which it participates; that, "as the Gods have an existence which is always invariably the same, so the human soul is *conjoined* to them by this knowledge, according to an invariable *sameness;* by no means pursuing or obtaining such knowledge through conjecture or opinion or a process of reasoning (all of which originate in time) but acquiring it by becoming co-united to them."

I repeat now that the explanation of Iamblicus may be altogether false, but you will notice nevertheless the outward facts he refers to, and which he says "happen daily." The explanation is in the phraseology of an answer to Porphyry, as follows:

"But the dreams that are denominated *Theopemptoi*, or *sent from God*, do not subsist after the manner which you mention, but they take place either when sleep is leaving us, and we are beginning to awake, and then we hear a certain voice which concisely tells us what is to be done; or voices are heard by us between sleeping and waking, or when we are perfectly awake. Sometimes an invisible and incorporeal spirit surrounds the recumbents, so as not to be perceived by the *sight*, but by a certain other *co-sensation and intelligence.*" The entrance of this spirit is accompanied with a noise, and he diffuses himself on all sides without contact, and affects admirable works conductive to the liberation of the passions of the soul and body.

[*Continued.*]

SWEDENBORG'S ANIMAL KINGDOM.

(*Continued.*)

The brain supplies the body and the blood with life, and its functions in this respect combine nutrition, circulation, and respiration. It respires the ethers of the world, it nourishes its life with ethereal chyle, and it circulates the animal spirit elaborated therefrom through the corporeal system. It may be regarded as a unity which involves in principle and idea all the varieties that are manifested in the two inferior regions of the thorax and abdomen. Its cortical substances involve the functions of both the heart and lungs, because they are in the degree above both. They are so many corcula propelling the animal spirit through the medullary fibres and nervous system, and so many pulmuncula performing an animatory motion synchronous with the respiratory motion of the lungs, although not dependent upon it, but automatic or self-derived, and which indeed generates the motion of the lungs, as the end generates the cause, or the cause the effect. The ethereal medium that they respire they derive principally through what are termed by Swedenborg the corporeal fibres, which originate in the skin, and run back from the last boundaries of the body to the first in the brain. Now the physiologists have never discovered the animation of the brain, because they have never seen the respiration of the lungs in its primary light. Had they done this, it would have been evident that the respiratory motion exercises a traction upon the sheaths of all the great nerves, and expands them, and that this traction is the external cause of a nervous circulation; for were there no fluid to respond to the force, there would be a tendency to a vacuum in these most impressible organs, and their parts would be strained, or drawn asunder. But if there be a real circulation in the nervous system, it must have centres that propel it, and times and moments in which it is performed. We have already seen that in this case the fluid is externally drawn forth by the attraction of the lungs, consequently in the times of the respirations, and hence it must be drawn in by the brains in the same times; in short the animations of the brains must be synchronous with the respirations of the lungs. Hence it is that the brain supplies the body with internal motive force at the same instant as do the lungs with external; the heart only maintaining the organs in a state of potency and supplying what they demand by the influx of this compound attractive force operating according to their various fabrics.

It must not be inferred that a truth of such paramount importance in physiology as the animation of the brain, rests upon the slight chain of reasoning attempted above. No; its attestation is as general as the truth itself is universal. But since Swedenborg has taken the proof of it upon his own Atlantean shoulders, the reader is referred to his treatise* on the subject for further corroborations. But it may be useful to indicate, that the doctrine is in no way shaken by the existence of the pulsatile movement so readily felt in young children, nor yet of that other movement, alternate and not synchronous with the respirations, which has been observed by some experimentalists. The truth is that all the three movements proceed uninterrupted by each other; and that the alternate movement, which is referrable to the blood rushing out by the veins during inspiration, is what chiefly masks the synchronous movement, which is automatic, or referrable to the brain itself.

There is no part of Swedenborg's system which is better worthy of attention than the doctrine of the skin. As the skin is the continent and ultimate of the whole system, so all the forms, forces and uses of the interior parts coexist within it. Moreover as it is the extreme of the body, and the contact of extremes, or circulation, is a perpetual law of nature, so from the skin a return is made to the other extreme, namely, to the cortical substances of the brain. Hence the first function of the skin is, "to serve as a new source of fibres." For the fibres of one extreme, to-wit, the brain, also called by Swedenborg the fibres of the soul, could not of themselves complete the formation of the body, but could only supply its active grounds, and therefore these fibres proceed outwards to the skin, which is the most general sensorial expanse of the brain, and there generate the papillæ; and again emerging from the papillæ, and convoluted into a minute canal or pore, they take a new nature and name from their new beginning, and become the corporeal fibres, or the fibres of the body, which proceed from without inwards to the brain, and unite themselves to its cortical substances. These are the passives of which the nervous fibres are the actives; the veins or female forces of which the nervous fibres are the arteries or males; and "they suck in the purer elemental food from the air and ether, convey it to their terminations, and expend it upon the uses of life."

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* Economy of the Animal Kingdom, tr. ii., 1—68.

Besides this, the skin has a series of other functions which there is not space to dwell upon at present. Inasmuch as it is the most general covering of the body, therefore it communicates by a wonderful continuity with all the particular coverings of the viscera and organs, and of their parts, and parts of parts. And as it communicates with all by continuity of structure, so it also communicates by continuity of function; the whole body being therefore one grand sensorium of the sense of touch. In short, the animal spirit is the most universal and singular essence of the body and all its parts; the skin, the most general and particular form corresponding to that essence.

Having thus bestowed a cursory glance upon some points of Swedenborg's doctrine of the three spheres of the body, and their most general and particular continent, the skin, we shall now enlarge a little on certain subjects that have already been mentioned, in order to give them a more distinct place in the reader's apprehension. And first with respect to the circulation. It is clear that in assigning its due weight to the primary function of the lungs, we obtain a law which enables us to limit the function of the heart and arteries; and the result is, that the heart and aorta simply propel the blood to the mouths of the arteries leading into the viscera, and the viscera themselves attract it thenceforth, and dominate over the circulation of their own vessels, commanding it to take place in the times of the respirations, and not in the times of the pulses of the heart. As one means to this end, the vessels which supply the organ, generally come off at right angles from the great artery.

But there is another branch of this subject which is worthy of attention. The circulation in the great vessels is comparatively inordinate or confused, because in them the blood is all mingled together in a heterogeneous mass, and propelled onwards by an external force; but the circulation in the capillaries is most orderly and distinct, being an automatic movement performed by the single globules of the blood, in vessels which correspond to them individually, and where they are perfectly at home. If a comparison be permitted, they constitute a medley crowd in the heart and aorta, but march separately, man by man, in the capillaries. Hence the blood in its mass can but imperfectly manifest its living endowments, but when sundered into its individualities or leasts, it distinctly exercises its dynamic nature, and flows spontaneously; for it is a spiral and circular force and tends therefore to a spiral gyration, or to circulation. Indeed in a universal sense, the leasts of the blood are the causes of the heart's action, and the grounds of the whole sanguineous movement; although speaking in generals, the heart, and the lungs acting on the viscera, are the joint causes of this effect.

[*Continued.*]

MEDICAL CASES.

Clairvoyant Examination of Mr. B———, by E. E. Dill.

"This patient's system is very much deranged, and he tires very easily from exertion. Perspires too freely, and is very liable to take cold. His blood circulates very unequally, and determines too much to the head. Liver torpid, nervous system irritable, and stomach quite weak. The lining membrane of the lungs is considerably inflamed, and the air cells of the left lobe are somewhat contracted. These derangements cause great general debility, accompanied with severe pains in the back, right side and left shoulder, with a good deal of stiffness of the joints—particularly the knees."

Remedies.—"Thoroughwort, 2 oz.; Indian Turnip, 1 oz.; Skunk Cabbage, 1 1-2 oz.; Hoarhound, 3 oz.; Lady Slipper, 2 1-2 oz.; Blood Root 2 oz.; Lobelia Seed, 1 oz.; Cherry Bark, 1-4 lb. Make into half a gallon of syrup; let the patient take half a wine glass full before each meal."

2dly. Take Extract of Dandelion, 1 dram; Sulphate of Iron, 1 do.; Carbonate of Potash, 1-2 do; ex. Blackroot, 1-2 do.; Make into four grain pills. Let the patient take one every evening, and two in the morning, until all are taken."

"The patient may bathe his feet two or three times per week in hot water; and he should also sponge all over every morning in cold Salene water."

"The magnetic machine should be applied three or four times through from the liver and epigastric region to the back. The positive pole may be placed over the region of the liver, and the negative pole should be passed down the whole length of the spinal column."

"The patient should be careful not to eat too much at a time. He may eat whatever his appetite craves, but he must be very careful to eat but little at a time until his digestive organs regain their natural tone and energy. This course of treatment will soon cure, and the patient will become stouter than he has usually been."

This examination was made last February, and in less than ten days after the patient went to work, and has not lost a day since from sickness. He stated to me a few days since that his health was much better than usual. This patient had taken a great deal of medicine previously to this examination, which resulted in no special benefit.

We was called in great haste, some ten days since, to see a patient who was given up by two of the old school physicians. In less than thirty minutes after we reached the patient's room, he was a corpse. A lady of the highest respectability was present, and an excellent Clairvoyant. A great desire was expressed by several present to have the corpse, (or the dying man, for he perceptably breathed for some minutes after the examination was terminated,) examined. The lady consented, and we threw her into the Clairvoyant state. The result of which was, that the patient had come to his death from the effect of strong medicines. She stated that the lower part of his lungs, stomach and liver were all mortified—that the strong medicine which he had taken, had produced a great deal of irritation, which lead to inflammation, and terminated in mortification. She then stated what would have arrested the inflammation, and restored the patient, had it been used before mortification took place. The lady was awakened, and we then enquired into the particulars of the patient. We was informed that he had taken a slight cold—complained of a pain in his left side, and had rather a hacking cough,—but was still able to walk about. On Wednesday he called in his family physician, who prescribed a dose of tartaremetic, bled,—taking about a quart of blood, and gave thirty grains of Calomel!!! The patient was immediately prostrated, and rapidly sank under the *magic* effects of these *Sampson's* of the drug shops—efficient weapons in the hands of *butchers!* To counteract the evil thus produced Iodine was prescribed, and as a last resort, a solution of Quinine and Camphor!!!! Comments are unnecessary. A comparison of the two cases is sufficient. From all the information we could gain, these two patients were very similarly deranged, in the first commencement of their attacks. Their temperaments and constitutions from every appearance was much the same. In tracing effects and their causes we certainly cannot be blamed for coming to the conclusion that the difference in these results originated in the difference in treatment.

* * *

CONSTIPATION OR COSTIVENESS OF THE BOWELS.

This is not only a troublesome symptom, but always indicates an unhealthy state of things in the stomach, liver and abdominal organs. The use of cathartic medicine for this symptom, so common at this day, always other things being equal, only aggravates the complaint. Good food as coarse wheaten bread and fruits, the avoidance of tea, coffee, spices, salt, and other heating and stimulating condiments, exercise in the open air, the drinking freely of pure soft water, and injections of the same fluid—judicious bathing daily followed—regularity and care in all the habits of life—these are the means, and incomparably the best, that can be used to prevent constipation.—[Water-cure Journal.

Those who have practised medicine in the Allopathic school, know something of the obstinate perverseness of this unnatural condition of the bowels; and those who have had the "ill-luck" to contract the habit, know something of the disappointments attending that kind of practice. Within my knowledge there are persons who have been afflicted with costiveness for a good half dozen years, and who have exhausted the round of medicating, taken rheubarb, magnesia, charcoal, syrups, patent medicines, &c., by the pound. Who is there, that has ever had this disease, that does not know by experience that medicines will not cure it permanently? A dose of any cathartic will give relief for a day or two, but the over excitement which it occasions, deepens and fixes more permanently the disease, and begets the necessity for other and larger portions of the medicine. The water-cure, in connection with correct living, and regular habits, promises not only immediate relief, but a perfect cure. Injections of cold, or tepid water, regularly each day, one or two general ablutions, together with the use of the sitz-bath, morning and evening for 20 or 30 minutes each sitting, washing and rubbing the bowels freely with the hand whilst in the tub, will, I believe, cure the most obstinate cases of costiveness. I have sometimes directed, in addition to the processes just named, that the wet bandage be worn at night—but this is rarely necessary.

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From the Mississippian.

SURGERY AND MESMERISM.

An interesting surgical operation was performed in our city on the 2d inst., by Dr. W. R. GIST, assisted by Dr. W. S. LANGLEY, of which the following description has been furnished us by one of the witnesses. The patient was the lady of Mr. James E. Mathews, Auditor of Public Accounts.

On the 25th June, Dr. Gist visited and mesmerized Mrs. M. for the first time, with the view of removing a cancerous tumor. He visited her again on the 27th and 29th of the same month, and mesmerized her on both occasions. The tumor was situated just behind the angle of the lower jaw, on the left side of the face, and over the lower half of the parotid gland. It was slightly inflamed and exceedingly tender, so much so that the slightest touch caused very great pain.

On the 2d inst., Dr. G. accompanied by Dr. Langley, visited the patient. She did not know that Dr. G. intended to perform the operation on that evening, but suspected it from the fact of Dr. Langley's being present, and was therefore much agitated. Dr. G., however, succeeded very soon, in placing her most fully under the mesmeric influence. At this time, Col. Mathews called in Chancellor Cocke, Gen. Clark and lady, and Mr. George Boddie, in whose presence the operation was performed. A portion of skin, one and a half inches in length and one inch in width was then removed—a cut was made about half an inch in depth, including the skin and cellular tissue, together with the entire tumor, taken away. It bled freely, after which the wound was closed with stitches and adhesive straps; the whole operation occupying about twenty minutes. The pulse and respiration were counted by Dr. Langley, both before and after the operation, and it was found that the pulse had not varied a beat in a minute, neither had the respiration changed. Those who watched the countenance, could not detect the slightest change in the features, not even the contraction of a muscle, although the operation was (or would have been under ordinary circumstances) a very painful one.

About a half an hour after the operation was over, she was awakened from her mesmeric sleep—her attention called to some irrelevant subject, when she laughed heartily and *naturally*. Her attention was then called to the wound. She was perfectly astonished, and said she knew nothing of it, but, that it then smarted and burnt. She is doing well, and will soon be entirely recovered.

Much praise is due Dr. Gist for the skilful and satisfactory manner in which the operation was performed. We learn that a full report will be made out for publication in some medical journal.

REMARKABLE MESMERIC CURE.

At a lecture given at Derby, Mr. S. T. Hall related the following remarkable case: It is that of a young lady of whose mind and disposition, to say the best I could, would be no compliment; but whose bodily powers were so worn down by a grievous internal disease and a natural delicacy of constitution, that some years ago, she was unable properly to balance herself when walking, and so fell from the top to the bottom of a flight of stairs, severely bruising the back of her head, and various portions of her spine, step after step, during the entire descent. From the description I have heard, the paroxysms and tortures to which she became subject, must have been most awful. Notwithstanding her previous debility, so powerful were the convulsions she afterwards for sometime underwent, that it often required the efforts of two or three strong men to prevent her being thrown by them off the bed. To the relief of these, nature came at length with an attack of paralysis, which entirely prostrated her, and for nearly three years she lay unable to help herself, as it was even with difficulty she could be helped by others, since the slightest application of a camel hair pencil to the region of the spine, was sufficient to occasion the most excrutiating pain. The best advice that could be obtained, afar or near—every remedy that medical authority could suggest to her kind and anxious friends—had been tried, and had left her little better than it found her; and when I was first introduced, she was not only suffering from exceedingly acute pain, but appeared to be as weakly and as inert as an infant. The results of my visits have since been attributed by some of our opponents, to the effect of a powerful imagination. But as ever since the cessation of her convulsions, one of the young lady's legs had become permanently foreshorted, so that when she was made able to stand, she could not bring the heel within two inches of the ground; and as this physical, and not imaginary contraction, has now been entirely removed—further, as a constant and anxious medical friend of the family had such faith in the patient's integrity and sound judgment, that he had declared long before, if mesmerism could produce any effect upon her, he should fully believe her report of it—such an interpretation is as preposterous and pitiful as the spirit that dictates it. Whatever the agent between my passes and her frame, or whatever name it may be called by—and 'the rose by any other name would smell as sweet'—this truth is clear to all who know her, and though her sufferings had been all and more than I have described, up to the commencement of my present series of visits to Derby, and though my treatment has been without the aid of drugs of any kind, she is not only now comparatively free from pain, but goes freely about the house, enjoying the society of her delighted friends, and occasionally walks, unsupported, in the garden, gathering flowers with her own hands, and thankfully reaping additional health from such a renewal of her acquaintannce with nature." We believe, says the Derby Reporter, that we are perfectly in order, in saying that the patient thus far restored, is Miss Longdon, of Friar gate, well known in Derby as a kind and intelligent member of the Society of Friends, whose parents, and others of the family connexion, were present at the lecture, and concurred in all that was advanced in relation to the case by Mr. Hall.—[Bath Herald, England.

Important Discovery.—A German friend translates for us, from the "Schnellpost," the annexed account of a highly important discovery:

FRANKFORT, (Germany,) August 10th.

At the meeting of the society for natural philosophy, held here the day before yesterday, some interesting facts were communicated by Professor Boettger relative to the important discovery of Prof. Shœnbein at Basle, (Switzerland,) to transform vegetable fibre into a transparent, colorless, glass-like mass. The process discovered by Professor Schoenbein is as yet a secret; but according to communications, made in polytechnical journals, the following striking results are said to have been obtained. Ordinary unsized paper may, by this process, be made tougher and more durable; it becomes perfectly water-proof, is not acted upon by either acids or alkalies, and needs neither sizing nor starching, in order to be used as writing, printing, or wrapping papaper. Thus prepared, it can also be made entirely transparent, exhibiting further the remarkable property strongly to develope electricity by friction. More important, however, are the effects of this process upon cotton, which thereby acquires the property of detonating on bringing it in contact with live coal. Professor Boettger said, that the reading of these facts induced him to resume his former researches in the same line, and that he succeded in arriving at like results, whether by a like process is not decided. He exhibited to the meeting specimens of paper, which displayed the properties mentioned above. A small quantity of prepared cotton, to all external appearance exactly like common cotton, even when examined under the miscroscope, exploded at the moment it came in contact with a piece of ignited tinder, leaving but a very small residuum. On further trials, made in presence of the writer of this communication, the cotton proved to be of more than double the strength of gunpowder. Professor Boettger discharged from a small pistol, loaded with cotton instead of gunpowder, a bullet, which passed through both an oak board two inches and a half, and a pine board one inch thick; whereas a bullet, fired from a barrel charged with gunpowder, of the same weight with that of the cotton, did not pass through the pine board alone. Further communications on this important discovery are looked for with no small degree of interest.

Electrical Phenomenon.—An account of human electricity was given in a number of Silliman's Journal sometime ago, which might, if carried out, lead to some important conclusions in respect to human phenomena heretofore unexplained. The subject became so electric that sparks were drawn from and even spontaneously issued from the ends of her fingers. During this time an intense aurora borealis showed itself. The phenomena continued for several months, the sparks being readily given out wherever the lady approached any conductor of electricity. She could touch nothing metalic without emetting an electrical spark, which was an annoying circumstance to her. These appearances were proportionably heightened when the air was warm and the lady was in good spirits. During cold weather, and when she was in a melancholy mood, these phenomenons were suspended. When sitting by a stove with her feet upon the metal edge, the sparks were drawn out at intervals of a few seconds, from three to six sparks per minute. The lady was about thirty years of age, of sedentary habits, and rather sickly. She had suffered from rheumatic and neuralgic affections about two years prior to this time.

[From the Northampton Democrat.]

PERSECUTION FOR OPINION.

BY STEPHEN J. W. TABOR, M. D.

Make it crime for men to speak and think,
And all our gifts would to oblivion sink;
The arts would wither—science droop and dye,
And commerce frighten'd seek another sky;
Blind ignorance would rule the land with awe,
And superstition be enthroned by law;
Cowl'd shaven monks would all the world control,
And burn and fulminate from pole to pole.
But Truth needs not the law to make it stand,
Nor asks assistance from the stake and brand.
Secure she moves enshrin'd by holy light,
And seeks no arms but those of moral might;

So far from gaining strength by ill judg'd force,
It clogs her feet and checks her in her course,
Enshrouds in darkness her refulgent lamp,
And marks her brow with error's fearful stamp.

Away, then, freemen, with those views so vain,
Which would renew vile Tarquemada's reign,
And here established, on Columbia's shore,
The Inquisition known in days of yore.
Let TOLERATION o'er your realms extend,
And faith and works forever find a friend:
Nor fear that harm may thus perhaps accrue
To aught divine, important, just or true.
"*Let Truth and Falsehood grapple,*" Milton said,
Though the encounter Error well may dread;
But Truth defies all human strength and wit—
MAGNA EST VERITAS—PREVALEBIT!
So reads the motto on her pierceless mail—
The Truth is mighty and it must prevail!
How impotent are then those senseless laws,
Which, made to aid, but retrograde her cause!
How base those men, who in the guise of zeal,
Convert with fire and demonstrate with steel!

Such men there were in a monastic age,
Who made the world a scene of woe and rage,
Who pour'd forth seas of pure and guiltless blood,
And revell'd gladly in the crimson flood.
But not to ancient monkish times,
Not to far distant or to foreign climes,
Need we to turn our horror stricken gaze
To mark the blight of persecution's blaze;
For o'er the earth her scorching flames have run,
And fed on gore wherever shines the sun,
Burnt and destroy'd in England, France and Rome,
And hung and branded even here at home—
Yes, even here, where proscrib'd freedom fled,
Has persecution rais'd her horrid head,
Confin'd the mind by oppressive sway,
And boldly walk'd abroad in open day,
O'er spread the land with misery and tears,
And prov'd her doctrines by the scourge and shears!

THE

SAINT LOUIS MAGNET.

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SIMILARITY BETWEEN PHYSICAL AND MENTAL PHENOMENA.

We have now shewn that the physical system is built up and sustained in harmony with the two great forces of Nature—the positive and negative—and that it is also finally decomposed—the infinitesimal particles of which it is composed, separated, thrown off, and returned back to their elementary state by these same forces, or laws of nature modified.

But that the mind is subject to these forces in nature, is not sufficiently considered by the philosophic world. When this subject is properly understood, it will banish many popular errors which are now sapping the very foundation of the morals of society, and has finally brought society to its present degraded and immoral condition. The violation of the moral law leads to violations of the organic law, and the violation of *this* law subjects us to most of the miseries—the pains and aches to which we are liable, and of which we so much complain. Could man become thoroughly instructed in the laws of nature, and the necessity of strictly obeying them—then would he become moral, healthy, and consequently happy.

But as long as the operations of nature are mystified, and man kept in doubt as respects his true situation in a state of being, and the immutable laws which govern him physically and mentally through all his changes of form in nature, and position in space, he must necessarily be subject to the unhealthy and demoralizing influences of a great amount of error, which renders him the miserable, superstitious and unhappy being which we find him, surrounded as he is with all his boasted improvements in the arts and sciences. It is impossible for man to become acquainted with these laws of nature, especially so far as *Theology* and *Political* economy is concerned, without first understanding himself and his mode of acting in a state of being; and until he takes his own mind, the motive power of all his actions, fairly and dispassionately into consideration, there is little probability of coming to any thing like correct conclusions upon any of these subjects, especially those pertaining to mind, for they have been rendered sombre and obscure by the metaphysical world.

There are only two correct and proper modes of becoming acquainted with nature in any of her operations; first by observation and comparison; and secondly, by reasoning from effects to their causes. All other modes would be extremely liable to error; and in the devising of other modes much error has been accumulated, which prove very burdensome to society, causing many of her members to stand entirely, or principally aloof, and gives rise to innumerable sects in religion, parties in politics, schools in medicine, and grades or classes in society, which are anti-moral, and anti-republican, for the reason that they create much animosity among the people, and draw lines of distinction which are not founded in justice.

But man is endowed by nature with the powers of mind, which places him in harmony with these beautiful modes of action; and hence, his accountability. He possesses perception, which renders him capable of observing surrounding nature, and all her operations, necessary for him to obey—to contrast and compare her physics, and trace many of the sublime causes which produce the innumerable effects with which he is surrounded—rendering him intelligent, comfortable and happy.

The great similarity between the physical and mental phenomena has not, however, been sufficiently observed by the generality of mankind. We observe that the body starts at a point, gradually grows, develops its parts, matures, and after sustaining its physical powers for some years, commences to diminish in size—the well developed limbs become shriveled, and the physical powers in general have decreased in force until the strong athletic man is seen tottering with his cane scarcely able to move about his room. The body, where the organic law has been obeyed, thus gradually goes down to the grave without ever suffering a *single pain,* and is gradually decomposed—returned to its mother earth, to replenish her of the strength which he had extracted from her while living. This enables the earth to give birth to other *forms* in a greater abundance, and thus the eternal round of nature is kept up in all her physical operations.

We observe upon the same principle that the mind starts at a point—gradually grows, develops itself upon the various subjects of the age, and finally matures with the body—is strong and soars in to the hidden mysteries of philosophy, and solves problems which brings to our view the most distant planet which revolves in our system—is liable to disease, becomes feeble and unable to enter upon deep and intricate subjects, and finally *ceases* to be manifested through the physical system, and returns back to the great *reservoir* of intelligence which fills the Universe, and is inseparably connected with all its operations.

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ATMOSPHERIC ELECTRICITY.

The appearance indicating an approaching thunder storm are generally a dense, low, black cloud, in one direction, and a few ragged, light clouds, in the opposite part of the heavens. These latter gradually approach the former, stretching out long filaments until they collapse with it, and thus form in the air an immense charged conductor, possessing the same powers upon the bodies it passes over, or meets with in its passage, as our common conductor has upon those presented to it. If a cloud of this kind meet with another cloud, differently electrified from itself, the electric matter flies off to all parts: hence arises flashes of lighting, and the air which has been divided by the passage of the fluid collapsing together, causes the awful report of thunder, or what is still more frequently the case, the charged cloud passes over some part of the earth in a different state from itself, when the lightning darts downwards or upwards, to restore the equilibrium—upwards if the cloud be negative, which is very rarely the case; or downwards if the cloud be possitive; or if the elemental strife be between the two clouds, the fluid passes from the one to the other without touching the earth, and therefore is not to be apprehended. The resistance of the air occasions lightning to appear zigzag or forked, sometimes it descends in a straight line, and rolls along the ground like a ball: this is most to be dreaded, as it shows the fluid to be very near us, and also in vast quantity. In a thunder storm also we find that its violence increases, until a very vivid flash, and consequently a very loud clap of thunder, expends the violence of the storm and then soon subsides. It is thought by many, that at the time of this vivid flash, a body falls to the ground, which has been called a thunderbolt. This opinion, however, is quite erroneous: no body whatever of a metallic nature attends any passage of the electric fluid—the substance thus consecrated by superstition is a nodule of sulphuret of iron.

The very appearance of lightning induced philsophers long to believe that it was only a grander species of electricity, excited without the intervention of human art; but the proof that they should be actually the same fluid, and should arise from the same cause, and be subject to the same laws, was reserved for the comprehensive and active mind of Dr. Franklin. He made the bold assertion, and with a common kite brought lightning from the clouds, and proved his assertion by performing with it all the experiments then known.

The identity of lightning with the electric fluid does not depend for proof upon appearances only, their similarity is observed throughout all their numerous effects.

1. Lightning destroys animal and vegetable life, so does the electric fluid.
2. The rapidity of the passage of both tends to show their identity.
3. Lightning sometimes renders steel magnetic, so does electricity.
4. Lightning melts metals, so does electricity.
5. Lightning rends to pieces trees, houses, and other bodies opposed to its passage, so does electricity.
6. Lightning sets fire to stacks, ships, buildings, &c., and these effects are easily imitated by an electrical machine.

Their identity therefore is firmly established, and it becomes us next to consider by what means the electric fluid becomes so disturbed, as to give rise to these effects. The greatest cause, and one fully adequate to produce all these appearances, is evaporation.

Ex.—Place upon the cap of a gold-leaf electrometer a tin cup, in which place a piece of hot iron, or cinder from a coal fire, and sprinkle upon it a few drops of water. Immediately the latter rises in vapor the gold leaves will diverge with negative electricity.

Thus it is proved, that whenever water is rarefied by heat its capacity for the fluid is increased, it therefore carries up with it a large quantity, thus increasing what already exist there. The whole amount of the fluid thus disturbed may be imagined, by stating that 5,280 millions of tons of water are, as is supposed, evaporated from the Mediterranean sea alone in one summer's day. It must be observed, that other causes are also in action, as currents of wind impinging upon the earth's surface, the motions of all bodies, chemical change, &c., sometimes adding to this accumulation, sometimes decreasing it, and thus it is, that different parts of the air are differently electrified at the same time. When this takes place to any great extent some phenomena occurs to restore the equilibirium between them. In pursuance of these ideas, it may be observed, that

1st.—Electrical phenomena take place in all climates whenever the sun's rays have accumulated a considerable quantity of vapor, and in the hottest climates these phenomena are produced on a scale of the most tremendous magnitude.

2d.—When evaporation is assisted by collateral causes, electrical changes occur with greater activity. The eruption of a vulcano is always attended by lightning, and the regions that surround the extensive sands of Africa, where the action of the sun's rays is assisted by reflection from an arid soil, are remarkable for violent storms and tempests—the air roasted in its passage over these sands, producing a rapid evaporation of the first water it meets with, and becoming thereby so loaded with moisture as to evolve copious streams and showers on any sudden diminuation of temperature: thus when it reaches the surface of the ocean on the W. of Africa, it occasions the dreadful hurricanes and terrific lightnings so common on the coast of Guinea; and such are also the electrical phenomena of all high ranges of mountains, for their icy summits occasion a condensation of the heated and moist winds which pass over them: hence the magnificient lightnings of the Cordilleras, and the coruscations of the Alps. In the tropical regions, the NE. and SW. trade winds are continually bringing masses of cool air towards the equator. The electric fluid is therefore disturbed, and thus are occasioned those universal electric diffusions which give the sky the appearance of being covered in every direction with one continued sheet of lightning.

3d.—Electrical changes are most frequent when evaporation and condensation succeed each other most rapidly—for instance, when a quick succession of rain and sunshine occurs, such variable weather is most frequently attended by thunder storms. Even the diurnal changes of heat and cold are amply sufficient to account for those ruddy tints and streaming flashes which are known as summer lightning.

The following article is the first chapter of a well written treatise on the subject of Animal Magnetism, "by ALPHONSE TESTE, M. D., member of several learned societies in Paris, translated by D. SPILLMAN, A. M., M. D., fellow of the Dublin College of Physicians."

The article is well worth a candid consideration.

ANIMAL MAGNETISM.

CHAPTER I.

1. *Mesmer and his Theory.*

It is now well nigh sixty-five years since animal magnetism made its *entree* into the world. Its discovery is generally attributed to Mesmer, a physician of Vienna. The nature and limits of this work will not allow us to give in this place a detailed history of this discovery, with all the changes it underwent in Germany from the first practical attempts of Mesmer in 1773 to 1778, in which year he came to France. It may be well to mention, however, that it was in almost total despair of the cause that Mesmer left his country, where the artful misrepresentations of Father Hell, and of Ingenhousz, had brought discredit on it. However, he was indebted for several cases of success to the employment of his new method; and in the year 1775 he published, in his *Letter to a Foreign Physician*, the complete exposition of his theory. We shall present to our readers the twenty-seven propositions which comprise it, under the form of aphorisms:

1. There exists a mutual influence between the heavenly bodies, the earth, and living bodies.

2. A fluid universally diffused and continued, so as to admit no vacuum, whose subtility is beyond all comparison, and which, from its nature, is capable of receiving, propagating, and communicating all the impressions of motion, is the medium of this influence.

3. This reciprocal action is subject to mechanical laws unknown up to the present time.

4. From this action result alternate effects which may be considered a flux and reflux.

5. This flux and reflux is more or less general, more or less particular, more or less compound, according to the nature of the causes which occasion it.

6. It is by this operation (the most universal of those presented to us by nature) that the relations of activity occur between the heavenly bodies, the earth, and its constituent parts.

7. The properties of matter and of organized bodies depend on this operation.

8. The animal body experiences the alternate effects of this agent; and it is by insinuating itself into the substance of the nerves that it immediately effects them.

9. There are manifested, more especially in the human body, properties analogous to those of the magnet; there are distinguished in it poles equally different and opposite, which may be communicated, changed, destroyed, and restored; even the phenomenon of inclination is observed therein.

10. The property of the animal body which renders it susceptible of the influence of the heavenly bodies, and of the reciprocal action of those which surround it, manifested by its analogy to the magnet, has made me to call it *animal magnetism.*

11. The action and virtue of animal magnetism, thus characterized, may be communicated to other bodies, animate and inanimate: both, however, are more or less susceptible of it.

12. This action and this virtue may be reinforced and propagated by the same bodies.

13. There is observed, by experiment, the discharge of matter whose subtility penetrates all bodies, without preceptibly losing its activity.

14. Its action takes place at a remote distance, without the aid of any intermediate body.

15. It is increased and reflected by ice, like light.

16. It is communicated, propagated, and increased by sound.

17. The magnetic influence may be accumulated, concentrated, and transferred.

18. I have said that animate bodies were not equally susceptible of it; there are some even, though very few, which possess a property so opposite, that their mere presence destroys all the effects of this magnetism in bodies.

19. This opposite virtue also penetrates all bodies; it may also be communicated, propagated, accumulated, concentrated, and transferred, reflected by ices, and propagated by sound; a circumstance which constitutes not only a privation, but a positive opposite virtue.

20. The magnet, whether natural or artificial, as well as other bodies, is susceptible of animal magnetism, and even of the opposite virtue, without, either in the one case or in the other, its action on iron or on the needle undergoing any change; which proves that the principle of animal magnetism differs essentially from that of the mineral.

21. This system will furnish new illustrations with respect to the nature of fire and light, as well as in the theory of attraction, of flux and reflux, of the magnet and electricity.

22. It will shew that with respect to diseases the magnet and artificial electricity have merely common properties with several other agents presented to us by nature; and that if any useful effects have resulted from these, they are owing to animal magnetism.

23. It will be seen by facts, from the practical rules which I shall establish, that this principle is capable of curing diseases of nerves immediately, and other diseases mediately.

24. That with its aid the physician is instructed with respect to the use of medicines; that he perfects their action, and excites and directs their salutary crisis so as to make himself complete master of them.

25. By communicating my method, I shall prove by a new theory of diseases the universal utility of the principle which I oppose to them.

26. With this knowledge the physician shall judge with certainty of the origin, nature, and progress of diseases, even the most complicated; he will arrest their increase, and attain their cure, without ever exposing the patient to dangerous effects or fatal consequences, whatever be the age, temperament, and sex. Women, even in the state of pregnancy, and at the time of their accouchment, will enjoy the same advantage.

27. This doctrine, finally, will enable the physician to judge accurately of the degree of health of each individual, and to preserve him from the diseases to which he might be exposed. The art of healing will attain its ultimate perfection.

Heaven grant that this hope may one day be realized; but we much fear, for the sake of humanity, that Mesmer's prophecy is still far removed from the period of its accomplishment. Be this as it may, the propositions which have been just read, a true imbroglio where we meet a little of every thing, of the absurd and the true, of facts and of metaphysics,—these propositions, I say met but little sympathy in the learned world of the time; and their author, from being too refined in his theory, passed as an eccentric in his practice. Besides Mesmer had no right to claim to himself the honor of his doctrine, since we find all the elements of it scattered through works more than a century anterior to his birth; an assertion whose truth may be readily appreciated by turning over the writings of Paracelsus, Van Helmont, Santanelli, and especially of Maxwell; we may say further, that the philosopher of Weiler shows himself, in more places than one, a rather servile copyist:

for, as we might prove by comparing with the enunciation of his principles certain texts quoted from the work of Bertrand, he does not scruple to transcribe his models almost literally.

However, if we think we can dispute with Mesmer the glory of having discovered animal magnetism, we cannot refuse him the merit of having made a dexterous and able display of it. It is still a disputed point whether this man possessed genius; but certain it is that his philanthropy was never denied. Some arch persons assure us even, that he sold it very dearly; witness the two hundred and fifty thousand crowns which he received, it is said, from his pupils in Paris. But this is not all: to the honor of teaching his method to the physician d'Eslon, and several other persons, Mesmer joined the still more profitable honor of *treating*, whether sick or not, all the great nobleman at the court of Louis XVI. It is plain, that, in order to excite the enthusiastic population of our new Athens, there would have been no necessity for such strange and such extraordinary innovations as the therapeutic processes which he employed. We may form an opinion of them by the description which the reporters of 1784 have left us of them:

"They (the commissioners) saw in the midst of a large room a round oak chest, raised about a foot or a foot and a half, called the *baquet*, (tub;) the upper part of this chest was perforated with a great number of holes, through which came branches bent at an angle and movable.—The patients were placed in rows around this *baquet*, and each with his iron branch, which, by means of the bend, might be applied directly to the affected part; a cord, passed around their body, united them one to another. Sometimes a second chain was formed by their joining hands,—that is, by each applying the thumb between thumb and *index* finger of his neighbor; then the thumb thus held is pressed; the impression thus made on the left is transmitted by the right hand, and it is thus circulated.

"A piano forte was placed in a corner of the room, and, according to the different movements, different airs were played on it. The sound of the voice and singing were sometimes joined to it."

To complete the picture, it may be added, that all those who magnetized were armed with an iron rod from ten to twelve inches long; and that the patients, besides the *fluid* which they received from the common reservoir, were again magnetized directly, either by means of the look of the magnetizer directly, or with the finger or the rod held out before their face or over their head, or by the application of the hands and the pressure of the fingers over the hypochondria and abdomen.

From the combined and sufficiently prolonged action of these different agents there occurred in some of the individuals who submitted to them (especially in the case of delicate women) phenomena of a variable kind, but always more or less unusual, such as fits of coughing, spasm, vomiting, sweating, pains, local or general, convulsions, &c. These were the famed *artificial crises*, from which Mesmer and his followers augured the certain and immediate cure of all diseases without the exception of a single one. God only knows whether Mesmer himself believed in the promises which he made to his patients; but if Germany carried her ingratitude so far as to recognize in him nothing but a barefaced, avaricious charlatan, we are almost tempted at the present day, magnetizers as we are, to join our judgment to that of his countrymen.

However, setting aside the so-called miracles of Mesmer, it was scarcely possible to refuse admitting, that there really existed something beneath the prestige with which the true manifestation of facts was so adroitly vailed; and one might even suspect that in Mesmer's tub, and in the Mesmerism of that day, there lay a mighty science in its cradle.

Widely different, however, was the judgment formed of it by the commission of 1784; we must make bold to say, that, notwithstanding the great merit and imposing names of the men who composed it, there cannot be a doubt but that the obvious incorrectness in the conclusions of their report must be attributed solely and exclusively to their injudicious manner of observing delicate facts against which also they were already prejudiced.

Borie, Sallin, d'Arcet, and the celebrated Guillotin, were the medical men appointed members of the first commission. At their request it was that the five members of the Academy of Sciences were added, Franklin, Leroi, Bailly, de Bory, and Lavoisier. (Borie having died at the very commencement, Majault was elected in his stead.)

Mesmer had then quitted France, (March 12, 1784;) he went to take the Spa waters for his health, (what contradictions in the life of a man!) and he had given up his practice in Paris to his pupil d'Eslon, one of the most distinguished members of the faculty, but in disrepute with his *confreres* since his conversion to magnetism.

There are few physicians, and no magnetizers, who have not read Bailly's report. It is the regular trial of the Mesmerian doctrine; and, most certainly, the conclusions which terminate it were well calculated to settle definitively the question of magnetism, if the judgments of men could subvert truth. But truth is eternal as God himself; we may malign or honor it, proclaim or proscribe it; this, however, produces no change in its existence.

The report of Bailly, spread with profusion, and probably with ostentation, throughout all the schools and all ranks of society, produce scarcely any other effect than that of souring minds already convinced, and of exciting among the partizans of the condemned doctrine recriminations more or less bitter against their judges. It is in the nature of the human mind to cherish independence and to feel exasperated by opposition; let power adopt and prescribe a creed, it will create a schism; let it proscribe this creed, it will create apostles for it; let it persecute it, it will gain martyrs to it. It would have gone as far as this in the case of magnetism, if power had wished it; power, however, would have had too much to do. Magnetism, in fact, now reckoned too many partizans on its side, and among them men of too much weight; it had found a defender in the very bosom of the Royal Academy, into which it had made its *entree* under the auspices of one of the greatest geniuses of the day. The report of Ant. L. de Jussieu, drawn up with the minute exactness of an honest and strict observer, was the counterpart of Bailly's report. It is only weak minds that dread contradiction in a cause of which they are sure, and which are afraid to put themselves in collision with the strong and the majority. Jussieu closed his report thus:—"The theory of magnetism cannot be admitted so long as it will not be developed and supported by solid facts. The experiments instituted to ascertain the existence of the magnetic fluid, prove only that man produces on his like a sensible action by friction, by contact, and more rarely by simple approximation at some distance. This action, attributed to a universal fluid not demonstrated, certainly appertains to animal heat existing in bodies, which constantly eminates from them, is carried to a considerable distance, and is capable of passing from one body into another. Animal heat is developed, increased, or diminished in a body by moral as well as by physical causes. Judge by its effects, it participates in the property of tonic remedies, and like them produces salutary or injurious effects according to the quantity communicated, and according to the circumstances in which it is employed. A longer use of this agent will make its real action and degree of usefulness to be better understood. Every physician may follow the methods which he thinks advantageous in the treatment of diseases, but only on condition that he publishes his mode of cure when they happen to be new or opposed to the ordinary practice. Those who have established, propagated, or followed the treatment called magnetic, and who propose to themselves to continue it, are accordingly bound to publish their discoveries and observations; and all treatment of this kind should be proscribed, the processes of which shall not be made known by immediate publication."

Even though Jussieu had not pointed out to magnetizers their obligation to publish an account of their works, such a duty would have been imperative on their part. Ardent and disinterested innovators, they desire nothing so much as the propagation of their creed. Accordingly we see memoirs, polemical works, and dogmatical books, developing new facts, rapidly succeeding each other.

Thouret's work entitled *Recherches et Doutes sur le Magnetisme Animal* published in 1784, for the sole object of stripping Mesmer of a celebrity which was beginning to give annoyance, produced a diametrically opposite effect. The vast erudition displayed by the author excited emulation, and opened a new road. History was consulted, old chronicles were searched, and all the facts which, in the annals of antiquity or of the middle ages, presented any analogy with the magnetic facts, were explained by a reference to the new doctrine. Hence the origin of those numberless erudite bibliographical researches which, thanks to the efforts of MM. Delenze, Abrial, &c., united to the writings of the Germans enable us at the present day to trace magnetism among nations now extinct or altogether changed, as also among all modern nations.

We shall now present to our readers a summary of these historical researches of a new kind.

§ II. *Magnetism among the Egyptians.*

Charlatans, according to Celsus, performed extraordinary cures by the mere *apposition of the hands*, and cured patients *by blowing*.

Arnobius, who confirms the same fact, states the reproaches which the pagans addressed to Jesus, in these terms: "He is a magician," said they, "who has done all these things by a clandestine art: he has furtively taken from the Egyptian temples the name of the powerful angles, and has robbed them of their ancient customs, their secret doctrines."

Finally, the supposed intervention of the goddess Isis, who, according to the Egyptian priests, inspired the faithful during their dreams with a knowledge of the means of curing themselves of their diseases, seems to us nothing else than *the instinct of those remedies* with which our somnambulists are endowed.

§ III. *Magnetism among the Hebrews.*

The prophets of Israel designated by the name of *seers*, were as well consulted for the ordinary events of life as for sacred things. We read, for example, in the ninth chapter of the Books of Kings, that Saul went to consult Samuel to learn from him what had become of his father's asses, which had been astray for several days.

Ahab, king of Israel, wishing to know if he should make war to take Ramoth in Gilead, assembled his prophets to the number of four hundred.

God speaks *during dreams* in the *visions* of the night, to warn man of the evil which he doeth, and to instruct him in that which he should know. Job xxxiii.

The son of the widow of Sarepta became sick, and his disease became so severe, that he no longer retained a breath of life. Elijah took the child in his arms, and carried him into the apartment where he resided, and laid him on his bed. He then extended himself thrice over the child, measuring himself by his little body, and he cried out,—"Lord my God, grant, I pray thee, that the soul of this child may re-enter his body;" and the child was restored to life. Kings, book iii, chapter xvi.

In nearly the same manner Elisha cured the child of the Shunammite.

§ IV. *Magnetism among the Greeks.*

The Greeks had derived most of their customs from India and Egypt. Medicine with them was as species of priesthood, the mysteries of which the initiated could not reveal to the profane under pain of sacrilege. Thus we see the first Greek physicians employ, for the cure of their patients, certain *magic* processes, which can only be compared to the acts of our magnetizers.

Pyrrhus, king of Epirus, cured persons suffering from the spleen by touching them slowly, and for a long time, on the painful side.

Ælian says that, on approaching the Psylle, persons were struck with stupor as if they had drunk a sporific potion, and that they continued deprived of their senses until the Psylle was removed.

The affection suffered by the body, says Hippocrates, the soul sees quite well with shut eyes.

According to Strabo, there was, between Nepa and Fralea, a cavern consecrated to Pluto and Juno, in which the priests slept for the sake of the patients who came to consult them.

Lastly, according to M. Foissac, the familiar spirit, the demon of Socrates, that interior voice, which apprised him of that which was to happen, and of that which he should do, was nothing but a state of crisis or of natural somnambulism, with which this godlike genius was frequently affected, whom our countryman, M. Lebut, has in vain sought to represent to us as laboring under insanity.

§ V. *Magnetism among the Romans.*

Esculapius delivered oracles *in a dream* for the cure of his patient.

"I will not suffer persons," says Varro, "to deny that the Sibyl has given men good counsel during her life and that she left after death predictions which are still eagerly consulted on all difficutlt emergencies."

We read in Saint Justin, "Sibyls spoke many great things with justice and truth, and that when the instinct which animated them ceased to exist, *they lost the recollection* of all that they had declared."

According to Celsus, Asclepiades put to sleep, *by means of friction*, those affected with phrenzy. It happened even rather frequently, according to the same author, that *too much friction might plunge the patient into a state of lethargy.* These facts, to which several others of a similar kind might be added leave no doubt with respect to their identity with the magnetic phenomena observed at the present day.

§ VI. *Magnetism among the Gauls.*

There is not probably throughout all antiquity a people among whom the power of magnetism held a more prominent station than among the Gauls. Women, brought up and instructed by the Druids, delivered oracles, foretold the future, and cured diseases. The accounts given by Tacitus, Lampridius, and Vopiscus, regarding the Druids, bear testimony to the confidence they had in the accuracy of their predictions.

"Endowed with extraordinary talents, they (the Druidesses) cure diseases deemed incurable, know the future, and announce it to the people."

Lastly, Pliny designates the Druids this way, *This description of prophets and physicians,—Hoc genus vatum medicorumque.*

§ VII. *Magnetism in the Middle Ages.*

In all times, as well as in all countries, extraordinary things have passed for supernatural, from the moment they no longer admitted of explanation; and as it is natural to refer and attribute supernatural things to a divine power, the history of magnetism in the middle ages, in the same way as in pagan antiquity and among the Gauls, is inextricably mixed up with the history of religion.

"The churches," says M. Mialle, "succeeded the temples of the ancients, in which the traditions and processes of magnetism were consigned. The same habits of passing whole nights in them, the same dreams, the same visions, the same cures. The true miracles performed on the tombs of saints are recognized by characters which it is not in the power of man to imitate; but we must exclude from the list of the ancient legends a multidude of very extraordinary cures, where religion and faith interfered only so far as to produce dispositions eminently favorable to the natural action of magnetism.

It is impossible for us to attempt in this place a critical analysis of those dark records, and it would require a volume merely to name the facts from the exorcisms of Saint Gregory Thaumaturgus to the convulsionaries of Saint Medard.

And, as we have already observed, some intelligent men one hundred years before the *discovery* of Mesmer expressed the objections to pretended miracles, and gave to magnetic facts their true interpretation.—"Magnetism," says Van Helmont, "is very active every where, and has nothing new but the name; it is a paradox only to those who ridicule every thing, and who attribute to the power of Satan whatever they are unable to explain."

[*Continued.*]

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MEDICAL CASES.

Clairvoyant Examination of Mr. ——, by E. E. Dill.

Disease.—"Digestive organs very much impaired—stomach eritable and weak—liver torpid—left lobe of the lungs slightly contracted. The pleura membrane is quite inflamed, which together with the eritableness and weakness of the stomach produces a great deal of hiccoughing. His spleen is somewhat enlarged, and the whole nervous system very much debilitated."

Remedies.—"Two oz. Virginia Snake Root; (*Aristolachia Serpentaria;*) 2 oz. Calamus; (Sweet Flag;) 2 oz. Columbo Root; (*Frasera;*)

make into one quart of syrup, and add one gill of best brandy and 3-4 lbs. of loaf sugar. Let the patient take a table spoonful before each meal." "The patient should take three of the Hepatic pills every evening for six weeks."

"The Magneto-Electrical Machine should be applied once per day for ten days. The positive pole should be applied to the stomach, and the negative pole should be passed down the whole length of the spinal column. The application may be continued fifteen minutes each time."

"Diet should be light. No strong coffee or meat should be taken. Should live principally upon a vegetable diet—meals may be more frequent than usual; but very little should be eaten at a time."

This patient came to us last July, from some two hundred miles in the country, after having tried the physicians in his neighborhood to his entire satisfaction. His condition as indicated by our Clairvoyant, was not of the most favorable character. His disease was complex, and his physical strength was very much exhausted. He had been hiccoughing for more than two weeks before he placed himself under our care.

The first application of the machine checked his hiccoughing, and the course of treatment which we have given above, soon restored his health so far, that he concluded to go home and apply himself to some light labor until his strength entirely recovered. His disease appeared to be entirely removed, and all he complained of was weakness.

We was called in great haste a few days since, to see a patient who was suffering the most excrutiating pain from inflammation of his eyes. He had paced his room four or five days and nights, in succession without being able to sleep a moment. His strength had became exhausted, and he had lost all patience with Doctors and medicine, and even life had became a burden to him.

He had been under medical treatment, by one of the leading practitioners in the old school, one of the oldest and most renowned professors in the medical department of Kemper College.

For the satisfaction of our readers, and the afflicted world, we will give the treatment which this patient received from this *celebrated* professor, and contrast it with the treatment which we gave him and under *hwich* he immediately recovered.

This patient told me he had taken *Calomel* every day, in one or *more* doses—that he had been cupped very frequently over the region of the temples; and that he had been leeched until there was no place about his eyes, which was not rendered soar and swollen, from the former wounds of the leeches ! ! !

This was the course of treatment—calomel, cupping and leeching; and when the lady objected to the Doctor's giving more calomel, he asserted most positively and angrily, "that it was the best medicine *he* could prescribe for him, and if *it* would do no good, *nothing* would save him." This speech, together with the wretched effects of the Doctor's treatment ruined him in the estimation of the lady. The prescription was consigned to the flames and with the determined perseverance of the lady, the patient passed into our hands.

We found him suffering the most excrutiating pain—his head and eyes very much swollen from much cupping and leeching, which created much more inflammation and swelling than would have otherwise been. His eyes were swollen, shut, and he had not seen a particle for several days.

In consequence of the great pain under which he was laboring, our first object was to allay it, so that he might rest sufficiently to sleep. In order to do this successfully, we placed him in a chair, and mesmerized him for an hour. In some fifteen minutes he went into a partial mesmeric sleep and sat easy. We continued the manipulations, until his suffering was so much relieved, and his system so much soothed into quiescence, that he said "he believed he could sleep all night."

We then applied a cooling wash to his eyes, which still soothed them more—his feet were then bathed in hot ley water, and a poultice was immediately prepared, by taking Stramonium leaves and simmering them in spirits, and thickening with the flour of slippery elm bark—a blister was applied on the back of the neck, and salts and cream of tartar was given to keep his bowels open and cool the blood. The action of the machine was passed through from the eyes to the back of the neck, which strengthened them very rapidly, and after applying it, the fourth time, he opened his eyes and could see to his great delight. The patient suffered no more pain, and slept well from the first evening after this course of treatment. By continuing this treatment, the inflammation was soon removed—it abated immediately, and in less than a week from the time we took him in charge, he went to his business as usual. We make no comments, we simply give the facts. We have every confidence in our readers' judgments to make their own comments.

DE OBFUSCATIONIBUS.

(*Continued.*)

"Sometimes a bright and tranquil light shines forth, by which the sight of the eyes is detained, and which occasions them to become closed, though they were before open. The other senses however are in a vigilant state, and in a certain respect have a co-sensation of the light unfolded by the gods; and the *recumbents* hear what the gods say, and they know by a consecutive perception what is then done by them. This, however, is beheld in a still more perfect manner, when the sight perceives, when intellect, being corroborated, follows what is performed, and this is accompanied by the motion of the spectators. There are many differences in these dreams, but no one of them is similar to human dreams. Wakefulness, a detension of the eyes, a similar oppression of the head, a condition between sleeping and waking, an instantaneous excitation or perfect vigilance, are indications of divine dreams." * * * * Some, not knowing these indications of prophetic dreams, and conceiving that they have something in common with human dreams, "but rarely and casually obtain a foreknowledge of futurity, and, in consequence of this, reasonably doubt how dreams contain any truth."

The author then proceeds to a more refined theory to explain himself, and says:

"The *wise* speak as follows: The soul has a two-fold life; one, in conjunction with body, the other separated from all body. When we are awake, we employ for the most part the life which is common with the body (except when we separate ourselves from it by pure intellectual and dianectic or reasoning energies:) But, when we are asleep, we are liberated, as it were, from certain surrounding bonds, and use a life separated from generation, and this life then energizes in a mode conformable to its nature; and this is so, whether this life be intellectual or divine, or whether these two are one."

It should be noticed here, that, according to the philosophy most current in the time of the author, there was a belief in one sole self-existing infinite God whom Plato would not even *name*, for reasons which he in part gives, and in part leaves to be conceived; then there was believed to be an universal intellect, in which existed paradigms or archetypes of all *created* or *sensible* objects, together with the *laws* of their *production*. Now the life which the author supposes in us to be separated from generation is that which coincides with or participates in the universal intellect, which, as he says surveys "real beings," or *beings in their essence*, and possesses with this a *knowledge of their causes*, and hence he says that, "according to a cause which comprehends (includes) future events, it (the soul) should have a foreknowledge of them." The author then attempts to define the causes of different degrees of this divine knowledge, which proceeds on the supposition of there being inferior deities superior to man and of various degrees of excellence, which, together with the *body-soul*, so to speak, still attached, as it were, to the pure soul, mix with the pure soul and thus cloud or disturb its apprehensions; and he goes on to say that "When the soul connects its intellectual ahd divine part with the *more excellent natures*, then its phantasms will be *more pure*, whether they are phantasms of the Gods or of beings essentially incorporeal. * * * If also it elevates the *reasons* of generated natures contained in it to the Gods, *the causes of them*, it receives *power* from them, and a knowledge *which apprehends what has been and what will be;* it surveys the whole of time, and the deeds which are accomplished in time, and is allotted the order of providentially attending to and correcting them in an appropriate manner. And *bodies that are diseased it heals*; and properly disposes such things as subsist among men erroneously and disorderly. It frequently delivers the discoveries of arts, the distributions of justice, and the establishment of legal institutions. * * * * * * "What occasion is there, however, to be prolix in mentioning every particular of things which happen daily, and which exhibit an energy superior to all language? * * * * * *

SWEDENBORG'S ANIMAL KINGDOM.

(*Continued.*)

The brain supplies the body and the blood with life, and its fur[illegible] in this respect combine nutrition, circulation, and respiration. [illegible] pires the ethers of the world, it nourishes its life with ethereal chyle, and it circulates the animal spirit elaborated therefrom through the [illegible]poreal system. It may be regarded as a unity which involves in [illegible] ple and idea all the varieties that are manifested in the two inferior [illegible]gions of the thorax and abdomen. Its cortical substances involve [illegible] functions of both the heart and lungs, because they are in the degree above both. They are so many corcula propelling the animal spirit through the medullary fibres and nervous system, and so many pulmuncula performing an animatory motion synchronous with the respiratory motion of the lungs, although not dependent upon it, but automatic or self-derived, and which indeed generates the motion of the lungs, as the end generates the cause, or the cause the effect. The ethereal medium that they respire, they derive principally through what are termed by Swedenborg the corporeal fibres, which originate in the skin, and run back from the last boundaries of the body to the first in the brain. Now the physiologists have never discovered the animation of the brain, because they have never seen the respiration of the lungs in its primary light. Had they done this, it would have been evident that the respiratory motion exercises a traction upon the sheaths of all the great nerves, and expands them, and that this traction is the external cause of a nervous circulation; for were there no fluid to respond to the force, there would be a tendency to a vacuum in these most impressible organs, and their parts would be strained, or drawn assunder. But if there be a real circulation in the nervous system, it must have centres that propel it, and times and moments in which it is performed. We have already seen that in this case the fluid is externally drawn forth by the attraction of the lungs, consequently in the times of respirations, and hence it must be drawn in by the brains in the same times; in short the animations of the brain must be synchronous with the respiration of the lungs. Hence it is that the brain supplies the body with internal motive force at the same instants as do the lungs with external; the heart only maintaining the organ in a state of potency and supplying what they demand by the influx of this compound attractive force operating according to their various fabrics.

It must be inferred that a truth of such paramount importance in physiology as the animation of the brain, rests upon the slight chain of reasoning attempted above. No; its attestation is as general as the truth is.* It is universal. But since Swedenborg has taken the proof of it [illegible] in [illegible] own Atlantean shoulders, the reader is referred to his treatise [illegible] the subject for further corroborations. But it may be useful to premise, that the doctrine is in no way shaken by the existence of the [illegible] movement so readily felt in young children, nor yet of that other movement, alternate and not synchronous with the respirations, which has been observed by some experimentalists. The truth is that all the three motives proceed uninterrupted by each other; and that the alternate movement, which is referrable to the blood, rushing out by the veins during inspiration, is what chiefly masks the synchronous movement, which is automatic, or referrable to the brain itself.

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* Economy of the Animal Kingdom, tr. ii., 1—68.

There is no part of Swedenborg's system which is better worthy of attention than the doctrine of the skin. As the skin is the continent and ultimate of the whole system, so all the forms, forces and uses of the interior parts coexist within it. Moreover as it is the extreme of the body, and the contact of extremes, or circulation, is a perpetual law of nature, so from the skin a return is made to the other extreme, namely, to the cortical substances of the brain. Hence the first function of the skin is, "to serve as a new source of fibres." For the fibres of one extreme, to-wit: the brain, also called by Swedenborg the fibres of the soul, could not of themselves complete the formation of the body, but could only supply its active grounds; and therefore these fibres proceed outwards to the skin, which is the most general sensorial expanse of the brain, and there generate the papillæ, and again emerge from the papillæ and convoluted into a minute canal or pore, they take a new nature and name from their new beginning, and become the corporeal fibres, or the fibres of the body, which proceed from without inwards to the brain, and unite themselves to its cortical substances. These are the passives of which the nervous fibres are the actives; the veins or female forces of which the nervous fibres are the arteries or males; and "they suck in the purer elemental food from the air and either, convey it to their terminations, and expend it upon the uses of life."

Besides this, the skin has a series of other functions which there is not space to dwell upon at present. Inasmuch as it is the most general covering of the body, therefore it communicates by a wonderful continuity with all the particular coverings of the viscera and organs, and of their parts, and parts of parts. And as it communicates with all by continuity of structure, so it also communicates by continuity of function; the whole body being therefore one grand sensorium of the sense of touch. In short, the animal spirit is the most universal and singular essence of the body and all its parts; the skin, the most general and particular form corresponding to that essence.

Having thus bestowed a cursory glance upon some points of Swedenborg's doctrine of the three spheres of the body, and their most general and particular continent, the skin, we shall now enlarge a little on certain subjects that have already been mentioned, in order to give them a more distinct place in the reader's apprehension. And first with respect to the circulation. It is clear that in assigning its due weight to the primary function of the lungs, we obtain a law which enables us to limit the functions of the heart and arteries; and the result is, that the heart and aorta simply propel the blood to the mouths of the arteries leading into the viscera, and the viscera themselves attract it thenceforth, and dominate over the circulation of their own vessels, commanding it to take place in the times of the respirations, and not in the times of the pulses of the heart. As one means to this end, the vessels which supply the organs, generally come off at right angles from the great artery.

"But there is another branch of this subject which is worthy of attention. The circulation of the great vessels is comparatively inordinate or confused, because in them the blood is all mingled together in a heterogeneous mass, and propelled onwards by an external force; but the circulation in the capillaries is most orderly and distinct, being an automatic movement performed by the single globules of the blood, in vessels which correspond to them individually, and where they are perfectly at home. If a comparison be permitted, they constitute a medley crowd in the heart and aorta, but march seperately, man by man, in the capillaries. Hence the blood in its mass can but imperfectly manifest its living endowments, but when sundered into its individualities or leasts, it distinctly exercise its dynamic nature, and flows spontaneously; for it is a spiral and circular force and tends therefore to a spiral gyration, or to circulation. Indeed in a universal sense, the leasts of the blood are the causes of the heart's action, and the grounds of the whole sanguineous movement; although speaking in generals, the heart, and the lungs acting on the viscera, are the joint causes of this effect.

[*Continued.*]

INDIAN CURE FOR FEVER.

Dr. Bayard received a letter from Wm. Penn, as follows: "As I find the Indians upon the continent more incident to fevers than any other distempers, so they rarely fail to cure them by great sweatings, and immediately plunging themselves into cold water, which they say is the only way not to catch cold. I once saw an instance of it with divers more in company. Being upon a discovery of the back part of the country, I called upon an Indian of note, whose name was Tennoughan, the captain general of the clans of Indians in those parts. I found him ill of a fever, his head and limbs much affected with pain, and at the same time his wife preparing a *bagnio* for him. The bagnio resembled a large oven, into which he crept by a door on the one side, while she put several hot stones in at a small door on the other side thereof, and then fastened the doors as closely from the air as she could. Now while he was sweating in his bagnio, his wife (for they disdained no service) was, with an axe, cutting her husband a passage into the river, (being the winter of 1683, the great frost, and the ice being thick,) in order to the immersing himself after he should come out the bath. In less than half an hour, he was in so great a sweat, that when he came out he was as wet as if he had come out of a river, and the reek and steam of his body, so thick, that it was hard to discern any body's face that stood near him. In this oondition, stark naked, a body cloth only excepted, he ran to the river which was about 20 paces, and ducked himself twice or thrice therein, and so returned, passing only through his bagnio, to mitigate the immense stroke of the cold, to his own house, perhaps 20 paces farther, and wrapping himself in his woolen mantle, laying down at his length, near a long but gentle fire, in the middle of his wigwam or house, turning himself several times till dry, and then he rose and fell to getting us our dinner, seeming to be as easy and as well in health as at any other time.

I am well assured that the Indians wash their infants in cold water as soon as born, in all seasons of the year."

Note.—The above looks very like the *Watercure:* it is however perfectly rational: in a fever there is obstructed perspiration, and this is sometimes the disease; the sole cause of fever. The heated oven, for such it was, quickened the course of the blood, and thus excited the action of the skin on the whole surface of the body, producing a profuse perspiration. The frost in the river was not a *necessary* part; but the body so heated was enabled to resist the cold which only acted as a tonic, restoring the *too* lax state of the skin, nerves, &c. The precautions taken of the warm blanket at a distance from a moderate fire, would restore a natural *glow:* and thus complete the cure.

The precise process is not necessary. A recent cold and consequent fever is best cured by drinking *largely*, (water, gruel, or almost anything else in *quantities*,) and immediately retiring to bed, this increases the column of the blood, and consequently its rapidity; a perspiration will follow, which effects a cure, but leaves the body relaxed: a cold bath, or single or double plunge, will restore *tone*, and effect a perfect cure. In case the fever should be produced by a derangement of the stomach or bowels, an emetic or aperient, would be desirable and safe previous to the sweating. While we advocate the cold water system in principle, we do not dismiss entirely the application of simples or specifics. We have no objection to physic with reason; but a serious objection to taking it on *faith*.—[N. Y. Beacon.

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Anecdote. *The Philosopher Ontdone.*—A learned philosopher, being in his study, a little girl came for some fire. Says the doctor, "But you have nothing to take it in;" and as he was going to fetch something, the girl, taking some cold ashes in one hand, put the live coals on with the other. The astonished sage threw down his books, saying, "With all my learning, I should never have found out that expedient."

* * *

We have received the District School Journal from Albany, New York. It is a well executed sheet—spirited, and well calculated to advance common school education, the purpose for which it is designed. The matter, editorially and selected, is good, and the whole thing indicates an exalted state of the public mind, on one of the most important subjects, which is now agitating the civilized world—*a common school education.*

This journal has reached its eighth number of the seventh volume. Terms, fifty cents per annum, in advance.

Address John R. Humphrey, Albany, New York.

The Medical Reformer, for November, is received. We are highly pleased with this work. It it is filled with solid practical matter. No bombast or chaffy matter about it. Its contents are instructing and highly interesting to the scientific physician as well as the general reader. Published monthly, at Cincinnati, Ohio, at one dollar per annum, in advance. Edited by B. L. Hill & Co.

THE

SAINT LOUIS MAGNET.

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(We feel it our duty to present our readers with some interesting facts in support of the views which we have advocated in our leading articles. These facts are taken from Sir George Smith Gibbes on Life. In due time we shall present our readers with a solution of our fourth proposition.)

SIR GEORGE SMITH GIBBES ON LIFE.

It appears from well-established experiments, that all the animal tissues are resolvable, on decomposition, into minute bodies, which, in water and under the influence of the sun, possess life and activity. These animalcula, or, more properly speaking, these ultimate points of vital activity, cannot be further decomposed, except by the agency of fire, when they become subject to chemical laws, and assume the state of gas.

By the aid of the microscope, and with a little management, it may be clearly seen that many of the processes of life depend upon these minute animals, and that the ordinary laws of matter, or the laws which regulate the material world, are totally out of the question in explaining the phenomena presented by these, the apparent rudiments of vitality.

The vitality and activity of the animalcula infusoria depend upon the influence of the sun, under which every pool becomes tenanted by myriads of them all displaying, when examined by the microscope, the most unequivocal proofs of life.

The sun, the source of life as well as light, supplies this vitality in all the endless variety of organized and living action; and modifies matter, in all these processes, in a manner totally different from all physical and chemical principles. We might as reasonably compare a scarlet color with the sound of a trumpet, as the phenomena of life and organization with any of the subjects, or any of the laws, of the material world.

The most subtle fluids, as heat, light, electricity, magnetism, &c., present phenomena which every new discovery brings nearer in affinity to the material world. Life, on the contrary, is wholly independent of all these, opposing the laws of matter in every instance, and defying, in all its combinations, those laws of affinity and attraction which form the foundation of the physical science. Organized bodies are endowed with properties totally different from all others, and no portion of such bodies is subject to the ordinary laws of nature, until every vestige of life be extinct.

Although in the dissecting room the human subject be dead as regards the creature then under consideration, yet the vitality is not lost, for every part of the organized structure resolves itself into new arrangements, and myriads of vital rudiments re-assert their rank in the living world. Thus manures supply them to the growing vegetable, and digestion prepares them for the use of animals. Built up as the human fabric is by innumerable myriads of living rudiments, we easily admit the fact, that every portion of it possesses vital powers : powers, in every possible view of them, wholly differing from the laws which regulate every subject of the material world.

About thirty years ago, I instituted a series of experiments respecting this very curious subject, which appeared then, as they now do, quite conclusive as to the essential purpose which the animalcula infusoria perform in the growth of vegetables. It was from considering the opinions of Ingenhouz, Priestly, and others, on the nature of the green matter which forms on water, that I was lead to examine very carefully with the microscope the animalcula infusoria, and to observe this matter, and the fibrillæ of the roots of other vegetables, whilst growing in water. Myriads of animalcula may be seen around the extremities of such vegetables, and it appears that these minute living bodies agglutinate themselves together, and *absolutely themselves become the added part ;* so that the fibres seem to be nothing more than a congeries of these animalcula, forming the growing part. They may be seen like bees entering a hive, and making up, where fixed together, the fibre itself.

The whole substance of the conferva rivularis certainly appears to be nothing more than a condensed congeries of the animalcula infusoria.

If a basin of water be half shaded from the sun whilst the other half is exposed to its rays, we find the shaded water to be without the animalcula, whilst they swarm by myriads in the exposed portion.

If a sprig of mint be placed in this water, the fibres of the roots extend and grow in the illuminated portion, but they make no advance in the dark part. The animalcula are seen to be supplied on the one side, and to fix themselves on the ends of the fibres, and to increase them longitudinally; on the other side, the animalcula being absent, the roots do not grow. The increase of the several parts of vegetables seem entirely dependent on the supply which they receive of these animalcula by the roots, leaves, &c.; for the leaves and blades of corn, even when growing in a room, are terminated by drops of water evidently supplying these monades, which arrange themselves according to the necessities of the growing vegetable, and according to the impulse originally given, and continually supplied by the seed of the plant.

The whole history and nature of compost and manure lead to the conclusion, that, by certain decompositions of animal and vegetable matters, these first rudiments of life are again set free to become, under new arrangements, subservient to the growth of the renewed vegetation.

Although from a great variety of observations and experiments, which at various times, during upwards of thirty years, I have made on the animalcula infusoria,—although, from these experiments, I have been convinced of their importance in explaining many of the phenomena of animal and vegetable life, yet I never should have ventured to make my opinions public, until I saw that others had led the way in the same line of inquiry.

The subject having, however, been brought forward, I feel at liberty to detail some experiments corroborative of the opinions that have thus been promulgated.

If it be admitted that there exists a totally different series of laws which regulate the vital and the material world, it must be of importance to trace those laws in each instance.

There is no division of inorganic matter by which we can arrive at an ultimate living particle. In organized bodies we find a terminating rudiment evidently endowed with a power of spontaneous activity, beyond the simplicity of which we cannot go. This is the *monas termo*, so called for that reason.

Some recent and most highly interesting views of the animal economy have appeared, wherein the composition of the human body is portrayed in a very novel and most curious manner.

"All the tissues of the animal body are shown to be ultimately resolvable into minute globules, as they are succesively disengaged from the mass, exhibit distinctly a power of spontaneous activity, moving about rapidly in all directions. In short, they become animalcula, possessing the power of locomotion, and have been named monades. It appears that these bodies are capable of existing as animals or vegetables, and of forming elementary parts of either.

"Thus, according to the above view of the subject, we arrive at the singular conclusion, that the human body, with all its organs, is built of animalcula, and that it is a congeries of countless millions of organized beings, each capable of living in a separate state, and perhaps exercising some of the functions of individual life, whilst incorporated with our system. It is not certain, but it is at least probable, that these monades form the last link in the chain of organic life, and that beyond them there is nothing but the ultimate gaseous elements.

"They are the units, we may reasonably suppose, by the addition or subtraction of which all the parts of the body are daily enlarged or diminished.

"The process of digestion, perhaps, consists merely in the operations necessary to separate these monades from the combinations in which they existed in the animal or vegetable substances which form our food; and that of assimilation, in the mode of conveying them to, and depositing them in, the various parts of the body for whose nourishment they are destined."

In my last communication I described the observations I had made on the part these animalcula perform in the growth of plants. In conformity with the object of the present paper, I shall describe some further experiments illustrative of the above view or the subject.

The green matter which spontaneously forms itself in vessels of water which are exposed to the action of the air, bears a strict analogy with the conferva rivularis and the tremella nostoc. If the property of producing oxygen gas during life and growth belongs only to vegetables, it would appear, from the experiments of Dr. Ingenhouz that there exists, in the three above mentioned vegetables, an insensible change from the animal to the vegetable kingdom, and *vice versa.*

Water which has been boiled, enclosed in an inverted vessel over mercury, does not produce the green matter, however exposed it may be to the light; whilst spring water, on the contrary, generally produces it under the same circumstances.

Boiled water then exposed to the air and to light, will produce the green matter.

Boiled water enclosed in a vessel inverted over mercury, will produce the green matter, if any vegetable or animal substance be added to it, as blood, flesh, fish, bile, potato, indigo, &c. At first these substances are decomposed, the water gets turbid, and a mixture of hydrogen gas, azote, and carbonic acid, is disengaged; the water at length becomes green, and, in place of these airs, nothing remains but oxygen gas, in a state of very great purity. If this water be examined with a good microscope, when it becomes green, we see a great number of animalcula, which move freely about it. In following our observations with these animalcula, we see them after a time relent in their movements, and unite together, forming the green matter.

If this green matter be suffered to dry, and be broken to pieces, and, if the broken pieces be placed in water, animalcula, absolutely similar in form to those which had united themselves in the green matter, reappear, and move about freely in the water.

In observing this curious fact, which can be easily done by a drop of water being placed in a concave glass, and covered over with talc to prevent evaporation, the round bodies, which are the animalcula, observe at first a perfect immobility; after a time, they acquire an oscillating motion, which increases, and at last assume the activity and vivacity that they had previously to their forming the green matter.

After this, the animalcula unite, and again form the green matter, which produces oxygen gas when exposed to the light.

From following these experiments with Dr. Ingenhouz, and in watching the progress of vegetation under a variety of experimental management, I have long since felt the conviction that vegetables acquire their growth under the instrumentality of the animalcula infusoria; and that the preponderating influence which either the animal or vegetable exercises seems to determine the *monas termo*, or its combinations, towards the formation of one or the other.

Although we may combine, in numberless ways, the elements of almost all food, oxygen, hydrogen, carbon, and azote, by chemical means, yet we never can produce that composition which will nourish animal life. That power belongs elsewhere, and must be sought for in the knowledge of the laws of vitality.

ANIMAL MAGNETISM.

(*Concluded.*)

§ VIII. *Magnetism in our own Times.*

Somnambulism, of which the Ant-D. de Jussieu had obtained some glimpse in the practice of Eslon, but which was entirely overlooked by Mesmer and the magnetisers of that day, is at the present day the prominent fact of magnetism, and all that is required to resolve definitely the great question connected with it, is to make known and demonstrate the existence of the phenomena which constitute it. We shall see presently what the state of public opinion is on this point, and more especially the opinion of medical men. But first, not to anticipate, let us continue our simple relation of facts.

The first cases of artificial somnambulism were observed by the Marquis de Puysegur, at his estate of Busancy. He wrote as follows, 8th of March, 1784, to one of the members of the Societe de l'Harmonie.

"I feel great pleasure, sir, in communicating to you some experiments in which I am engaged at my estate. I am so agitated myself, I may even say so transported, that I feel I stand in need of some repose and relaxation, and I hope I shall find it in writing to one who is capable of understanding me. When I censured the enthusiasm of Father Hervin, how far I was from understanding the cause of it! Even now I am as far from approving it, but I excuse it. More fire, more heat of imagination, than probably I possess, have carried him away. Would that I, as also those who, like me, shall be engaged in animal magnetism, would contribute to restore composure to the mind of those who witness our extraordinary experiments, and that by our own composure. Let us, however, after Mesmer's example, make efforts to restrain ourselves; and, certainly, powerful efforts are required to prevent ourselves from being exalted to the very extreme point, when we see all the surprising and beneficial effects which a man with a kind heart and a desire to do good may produce by means of animal magnetism. I enter then on the subject, and with no inconsiderable ardor.

"After ten days' rest at my estate, without attending to anything but my repose and my gardens, I had occasion to enter into the house of my steward. His daughter was suffering from a violent toothache; I asked her in jest if she wished to be cured; she, of course, consented.

I had not been ten minutes magnetising her, when her pain was completely gone; and she felt no return of it after.

"Another woman was cured on the following day of the same affection, and in as short a time.

"This slight success made me try to do some good for a peasant, about twenty-three years of age, who had been keeping his bed for four days in consequence of inflammation on his chest.—I went to see him: it was last Tuesday, the fourth of this month, at eight o'clock in the evening; the fever had just become lighter. I made him get out of bed and magnetised him. What was my surprise to see, at the end of half a quarter of an hour, this person *fall into a tranquil sleep* in my arms, without pain or convulsion. I urged on the crisis, which caused him some giddiness in the head: he spoke aloud of his ordinary affairs. When I thought his ideas must affect him disagreeably, I arrested them, and began to inspire him with others of a more pleasant and more lively turn. It required no great effort on my part to accomplish this. Then I saw him quite happy, fancying that he was dancing at a *fete*, &c. I cherished these ideas in him, and thereby I *forced* him to move himself with considerable activity on his chair, as it were to dance to an air which, by singing *mentally*, I made him repeat quite loud. By these means I made the patient sweat profusely from that day. After an hour's crisis I quieted him, and left the room. A drink was now given to him, and having ordered some bread and broth to be brought to him, I made him on that same evening eat a considerable quantity, a thing which he had not been able to do for the last five days. He slept all that night, and the next day, not remembering my visit of the evening, he informed me of the improved state of his health. I gave him two crises. Wednesday and Thursday I had the satisfaction of seeing him affected merely with a slight shivering. Every day I had the patient's feet put into water for the space of three hours, and gave him two crises a day. To-day (Saturday) the shivering lasted a less time than usual, his appetite was kept up, he enjoyed a good night's rest; in fine, I had the satisfaction of seeing him perceptibly better, and I expect that in three days more he will resume his usual employments, etc."

Many facts of a similar nature have been published by M. de Puysegur since this letter; and since this period, cases of artificial somnambulism have been so multiplied, that there is now scarcely any person who has not had an opportunity of collecting some. This novel order of phenomena must necessarily modify the first ideas formed of magnetism; every thing is now changed in the processes, as in the theory.

A *nervous fluid* has been substituted for Mesmer's *universal fluid;* but this modern hypothesis scarcely deserves mention, for in the natural sciences the facts alone are more or less immutable, and the explication given of them depends on the turn of mind, and the degree of knowledge of the men who observe them. But it cannot be disputed that the question of animal magnetism has really changed soil since the discovery of Puysegur; and that when M. Foissac proposed, in 1826, to the Academy of Medicine the examination of a case of somnambulism, the object was by no means to resume and reconsider the observations of 1784, but rather to observe a something altogether new. Messieurs, the members of the Academy, charged by their colleagues to avail themselves of the opportunity of a new commission, expressed themselves in the following terms:

"1. The decision formed in 1784 by the commissioners charged by the king to examine animal magnetism should not, by any means, sanction you in dispensing with examining it *de novo,* because in science no decision whatever is absolute and irrevocable.

2. Because the experiments, on which this judgment was founded, appear to have been conducted without the simultaneous and necessary assembling together of all the commissioners, and also with moral dispositions, which, according to the principles of the fact which they were appointed to examine, must cause their complete failure.

3. Magnetism, thus judged in 1784, differs entirely in theory, processes, and results, from that which close, attentive, and strict observers, and which enlightened, indefatigable physicians, have studied in later years.

4. It is to the honor of French medicine not to remain behind German physicians in the study of the phenomena, which the enlightened and impartial favorers of magnetism declare to be produced by this new agent.

5. In considering magnetism as a secret remedy, it is the duty of the Academy to study it, to subject it to trial, finally, to take away the use and practice of it from persons quite strangers to the art, who abuse this means, and make of it an object of lucre and speculation.

After all these considerations, your Commission is of the opinion, that the section should adopt the proposition of M. Foissac, and appoint a special commission to direct their attention to the study and examination of animal magnetism.

(Signed) **Adelon, Pariset, Marc, Burdin**, sen.,
Husson, *reporter.*"

After long debates, these conclusions were adopted by the Academy, and the commission called for in October, 1825, was at length formed in May, 1826; consisting of MM. Leroux, Bourdois de la Motte, Double, Magendie, Guersant, Husson, Thillaye, Marc, Itard, Fouquier, and Gueneau de Mussy.

Almost immediately after their nomination, the commissioners commenced their task, and continued it up to the middle of the year 1831, at length, at the sittings of the 21st and 28th of June of the same year, communicated to the Academy, through M. Husson as their organ, the results of their observations.

M. Husson's Report, remarkable in more points than one, will always form an epoch in the annals of magnetism; and it would be difficult for us to give our readers a more distinct and authentic idea of the existing state of the science, than by transcribing for them literally the conclusions of this Report.

§ IX. *Conclusions of M. Husson's Report in* 1831.

1. The contact of the thumbs or of the hand, frictions or certain gestures made at a short distance from the body, and called *pasees*, are the means employed to connect, or, in other words, to transmit the action of the magnetiser, to the magnetized.

2. The means which are external and visible are not always necessary, since, on several occasions, the will, fixedness of stare, have sufficed to produce magnetic phenomena, even without the knowledge of the magnetised.

3. Magnetism has acted on persons of different sexes and different ages.

4. The time necessary to transmit and communicate the magnetic action has varied from one hour to a minute.

5. Magnetism does not act, in general, on persons in good health.

6. Neither does it act upon all who are sick.

7. During the process of magnetising, insignificant and momentary effects manifest themselves sometimes, which we do not attribute to magnetism alone; such as slight oppression, heat or cold, and some other nervous phenomena, which may be accounted for without the in-

tervention of a particular agent, namely, through hope or fear, prejudice, and the expecting of something strange and new, the *ennui* occasioned by the monotony of the gestures, the silence and calm observed during the experiments, and, finally, through the imagination which exercises so great a dominion over certain minds and certain organizations.

8. A certain number of the effects observed have seemed to us to depend on magnetism alone, and are not reproduced without it. These are well attested physiological and therapeutical phenomena.

9. The real effects produced by magnetism are very varied; it disturbs some, tranquilizes others; most usually it causes the momentary acceleration of the respiration and circulation, temporary convulsive movements of the fibres, resembling electric shocks, stupor more or less profound, somnolence, and, in a small number of cases, that which magnetizers call *somnambulism*.

10. The existence of some one character proper to make known, in all cases, the reality of a state of somnambulism, has not been ascertained.

11. However, we may conclude, with certainty, that this state exists, when it occasions the development of new faculties, which have received the denominations of *clairvoyance*, *intuition*, *internal prevision;* or, when it produces great changes in the physiological state, as *insensibility*, *a considerable and sudden increase of strength*, and when this effect cannot be attributed to any other cause.

12. As among the effects attributed to somnambulism there are some which may be simulated, somnambulism itself may sometimes be simulated, and furnish charlatanism with means of deception. Also in the observation of those phenomena which still present themselves as isolated facts, which can be connected with no theory, it is only by the most attentive examination, the most strict precautions, and by numerous and varied trials, that we can escape illusion.

13. Sleep brought on with more or less readiness, and established to a degree more or less profound, is a real but not a constant effect of magnetism.

14. We are satisfied that it has been excited under circumstances where those magnetised could not see, and were entirely ignorant of the means employed to occasion it.

15. When once a person has been made to fall into a magnetic sleep, there is not always a necessity to have recourse to contact and to passes

in order to magnetize anew. The look of the magnetizer, his will alone have the same influence on the person. In this case, one may not only act on the person magnetised, but even put him completely into somnambulism, take him out of it without his knowledge, out of his sight, at a certain distance, and through closed doors.

16. There usually occur changes, more or less remarkable, in the perceptions and faculties of those individuals who fall into a state of somnambulism by the effect of magnetism.

A. Some, amid the noise of confused conversations, hear only the voice of their magnetizer; several answer with precision the questions put to them either by the latter or by the persons near them; others hold conversations with all the persons around them; however, they seldom understand what passes around them. Most of the time they are entirely strangers to the external and unexpected noise made in their ears, such as the sound of copper vessels forcibly struck, the fall of any heavy substance, &c.

B. The eyes are closed: the eyelids yield with difficulty to the efforts made with the hand to open them. This operation, which is not without pain, allows one to see the eyeball convulsed, and directed towards the upper and sometimes towards the lower part of the orbit.

C. Sometimes the sense of smell is, as it were, abolished. One may make them respire hydrochloric acid of ammonia, without their being inconvenienced by it, or without even suspecting it. The contrary occurs in certain cases, and they are sensible to odors.

D. Most of the somnambulists that we have seen were completely insensible. One might tickle their feet, nostrils, and the angle of the eyes by the approach of a feather, pinch their skin so as to produce ecchymosis, prick it under the nails with pins put into a considerable depth, without their evincing any pain or being at all aware of it. In a word, we have seen one person who was insensible to one of the most painful operations of surgery, and whose countenance, pulse, or respiration, did not manifest the slightest emotion.

17. Magnetism has the same intensity, it is as promptly felt, at the distance of six feet as of six inches, and the phenomena developed by it are the same in the two cases.

18. The action at a distance does not seem capable of being exercised with success, except on individuals who have been already subjected to magnetism.

19. We have not seen that a person magnetized for the first time fell

into a state of somnambulism; sometimes it was not till the eighth or tenth sitting that somnambulism declared itself.

20. We have constantly seen ordinary sleep, which is the repose of the organs of the senses, of the intellectual faculties, and of the voluntary movements, precede and terminate the state of somnambulism.

21. Whilst they are in a state of somnambulism, the magnetised persons we have observed retain the exercise of the faculties which they have whilst awake. Their memory even appears to be more faithful and more extensive, since they remember what has passed during all the time, and on every occasion that they have been in the state of somnambulism.

22. On their awaking they say that they have entirely forgotten all the circumstances connected with the state of somnambulism, and that they never remember them again. With respect to this we can have no other surety than their own declarations.

23. The muscular strength of somnambulists is sometimes deadened and paralyzed; at other times their movements are but constrained, and somnambulists walk or stagger like persons intoxicated, and without avoiding, though sometimes carefully avoiding, the obstacles which they meet in going along. There are somnambulists who retain in fact the exercise of their powers of moving; some are seen to be even strongre and more active than in the state of being awake.

24. We have seen two somnambulists distinguish with their eyes shut the objects placed before them; they have told, without touching them, the color and value of the cards; they have read words traced with the hand, or some lines of books opened by mere chance. This phenomenon took place even when the opening of the eyelids was accurately closed by means of the fingers.

25. We met in two somnambulists the power of foreseeing acts of the organism more or less complicated. One of them announced several days, nay, several months before hand, the day, the hour, and the minute, when epileptic fits would come on and return; the other declared the time of the cure. Their previsions were realized with remarkable exactness. They seemed to us to apply only to acts or lesions of their organism.

26. We have met but one somnambulist who described the symptoms of the disease of three persons with whom she had been brought into contact. We instituted researches, however, on a considerable number.

28. To establish with any accuracy the relations of magnetism to therapeutics, it would require to have its effects observed on a great number of individuals, and to have experiments made on the same patients for a considerable time and every day. This not having been done, the Commission must restrict itself to saying that which it has seen in too small a number of cases, without pronouncing anything.

28. Some of the patients magnetized have felt no benefit; others have experienced a relief more or less marked, viz: one the suppression of habitual pains, the other the return of strength, a third a retardation for several months in the recurrence of epiletic attacks, and a fourth the complete cure of a severe paralysis of long standing.

29. Considered as an agent of physiological phenomena, or as a therapeutical mean, magnetism must find its place in the *cadre* of medical knowledge; and, consequently, medical men only should practice it, or watch and superintend its employment, as is done in the northern countries.

30. The Commission has not been able to verify, for the want of opportunity, other powers which magnetizers have declared to exist in somnambulists; but it has collected and communicated facts sufficiently important to induce it to think that *the Academy should encourage the researches on magnetism, as a very curious branch of psychology and natural history.*

The Commission having arrived at the termination of its labors before the closing of this Report, asked itself whether, amid all the precautions with which they had surrounded themselves to avoid surprise; whether with the feeling of constant distrust with which they had always proceeded; whether in the examination of the phenomena observed by them, they had scrupulously performed their duty? What other course, said we to ourselves, could we have followed? With what distrust more marked or more cautious could we have been influenced? Our conscience, gentlemen, has answered us aloud that you could expect nothing from us which we have not done. Then have we been honest, accurate, faithful observers? It is for you who knew us for so many years, for you who see us constantly either in public life or in our frequent meetings, to answer this question. Your answer, gentlemen, we expect from the old friendship of some of you, and from the esteem of all.

Certainly we do not presume to make you share our conviction regarding the reality of the phenomena observed by us, and which you have neither seen, nor followed, nor studied with us and as we did.

We do not, then, claim from you a blind credence in all that we have reported. We conceive that a considerable portion of these facts are so extraordinary, that you cannot grant it to us; probably we ourselves would presume to refuse ours, if you came to announce them at this tribunal to us, who, like you, had neither seen, observed, nor studied any of them.

All we require is, that you judge us as we should judge you; that is, that you wonld be convinced that neither the love of the marvellous, nor the desire of celebrity, nor any interest whatever has guided us in our labors. We were animated by motives of a loftier character, more worthy of you—by the love of science, and by the necessity of justifying the hopes which the Academy had entertained of our zeal and our devotion.

"(Signed) Boudois de la Motte, *president*; Fouquier, Gueneau, de Mussy, Guersant, Itard, J. J. Leroux, Marc, Thillaye Husson, *reporter*."*

The report of M. Husson produced a great impression on the Academy. However, if it awakened some doubts, it produced few convictions. No one could question the veracity of the commissioners, whose good faith, as also their great knowledge, was undeniable; but they were suspected of having been dupes. In fact there are certain unfortunate truths which compromise those who believe in them, and those especially who are so candid as to avow them publicly. Magnetism is among the number of these truths. But let magnetizers console themselves and take courage; posterity has done justice to Galileo; in their turn posterity will render them justice. The past answers them for the future; for if they open history, they will there see that at all times the academies were as they are at the present day, barricaded citadels against all innovation. Truth penetrates them only by stratagem most frequently, but sometimes also it enters there by force, when, after having successively attacked all understandings, it assails the walls of the sanctuary by its boisterous waves, and, finally, forces them to crumble.

Here our historical notices regarding animal magnetism terminate; for the academical discussions of the following years, the prize proposed in 1837, and Gerardin's Report in 1838, do not seem to us to constitute any new phases in this history.

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* MM. Double and Magendie, not having been present at the experiments, did not deem it right to sign the report.

With respect to ourselves, our profession of faith is, that animal magnetism will have acquired, after a little, the right of being enrolled among the discoveries which do most honor to the human mind.

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DE OBFUSCATIONIBUS.

(*Concluded.*)

* * "I wish, now, to point out the *signs* by which those who are *rightly possessed* by the gods may be known. They either *subject the whole of their life as a vehicle or instrument* to the inspiring Gods; or, *they exchange the human for a divine life;* or they energize with their own proper life about divinity. But they *neither energize according to sense*, nor are in such a vigilant state, as those who have their senses excited from sleep (for in sleep they do not apprehend future events,) nor are they moved as those are who energize according to impulse. Nor, yet, *are they conscious of the state they are in*, neither as they were before, nor in any other way; *nor*, in short, do *they convert to themselves their own intelligence, or exert any knowledge which is peculiarly their own.*

"The greatest indications however are the following; that many, through divine inspiration, are not burned when fire is introduced to them, the inspiring influence preventing the fire from touching them. Many though burned, do not apprehend that they are so, because they do not live an animal life. Some, though transfixed with spits, do not perceive it; and others that are struck on the shoulders with axes; and others that have their arms cut with knives, are by no means conscious of what is done to them. Their energies, likewise, are not at all human. Inaccessible places become accessible to the divinity inspired; they are thrown into fire, and pass through fire, and over rivers, like the priest in Castabalis, without being injured. But from these things it is demonstrated that those who energize enthusiastically are not conscious of the state they are in, and that they neither live a human nor an animal life according to sense or impulse, but that they exchange this for a certain more divine life, by which they are inspired and perfectly possessed."

There is more of this in my author, scattered through some hundred and fifty 8vo pages; but here is enough to afford an inference that strange facts must have existed before so elaborate an explanation of them could have been devised and published. That many of these facts coincide with those of mesmerism no one need be told who has given the least attention to this *modern* science.

But a *Sadduccee* might ask—if there be anything real in all this—why is it that the world has been ignorant of it so long? and why have not men in different ages been found to assert the existence of these phenomena, from time to time?

If it be not admitted to be a reasonable answer to say, that all history represents the world as progressing, not *visibly* in a regular order, but in *periods* or *cycles*, and that remarkable men only appear at intervals of time, embracing whole centuries;—as, in the physical world, we see that comets have very unequal orbits, the great comet of 1680 requiring a period of some 500 years to complete its circuit; then, let it be maintained, and perhaps it can be easily established, that some of the mysteries connected with the phenomena of Mesmerism *have always found advocates in the world.*

Who does not know the long, very long period during which Magic was believed in? Magicians have been in the world since long before they contended against Moses in the presence of Pharaoh. During many hundred years of what are called the dark ages, history is full of accounts of condemnations, confessions and burnings of Magicians, *together with their books,* so that we of this age cannot ascertain *from their own books what those Magicians asserted, practised and died for,* but must depend upon a few fragments preserved *by their enemies.* To those who look into this subject, it will be matter of astonishment that, in almost every case where anything is known of the character of those accused of Magic, they were men of great genius and learning, far beyond that of their age. I will here throw in a few notes from Bayle's Dictionary alone. *Roger Bacon* was himself accused of Magic, and yet his admirers in this age are discovering or pretending to discover that he anticipated almost every remarkable invention brought to the "benefit of man" since his day—even that of steam power itself. He preceded his great name-sake, Sir Francis, and it is stated that he held books on Magic in great respect, and gave the opinion that they ought to be preserved, assigning as a reason that the time was approaching when the world would be obliged to peruse and consult them on some occasions." It is no great piece of extravagance to say that the time is now—not for the purpose of reviving astrological fictions and other similar fooleries, but to see what *facts* have been recorded, and to turn them to the proper interpretation of nature.

Henry Cornelius Agrippa is called "a great Magician." He was born in Cologne in 1446. Bayle says, "it cannot be denied that he was a very great genius, and had a very extensive knowledge of languages and things." He was at one place persecuted by the Monks—had to leave another place because he protected a countrywoman who was accused of witchcraft. He met with persecution everywhere, equally for a work on the Vanity of the Sciences and one on *Occult Phylosophy*, and died, some say, in the Hospital at Grenoble, 1533. He is said to have been "miserably enchanted to the most cunning and execrable magic that can be imagined, and of which he made such evident profession, in the sight, and to the knowledge of every one, that it is impossible to deny it by palliations or disguises." Some said that, "by magic art, he griped his enemies with his crooked and gouty hands, in such a manner that many valiant Captains would not do the like with the clashing of their arms and a furious fight." One may reasonably wish to know what *fact*, if any, lay at the bottom of such a story as this. In his occult philosophy, he is represented as saying, that we must look for the principle of the operations in ourselves—and talks of "communicating from one spirit to another;" and he afterwards speaks of the understanding as the key to this philosophy, but insists that it is necessary "to be united to God, freed from matter, dead to the world, to the flesh, to all the senses, and to the whole natural man."

Alchindus, about the 11th century, is said to have written a work entitled De Theorica Magicarum Artium, which induced all the Demonographers to represent him as a dangerous magician; and yet it is said that his sole view was to account in a natural way for all that is attributed to good and bad angels; and it is mentioned, as one of his opinions, that sublunary things depend wholly on heavenly, and that they mutually receive their properties from each other, and that each receives from the whole, by means of certain *effluvia*,—you remember the extracts from Plutarch,—which, passing from the least to the greatest, are the cause of all the phenomena of nature. Who, in this age, can say what is contained in the Theorica Magicarum Artium?

Peter Aponus was born in 1250, near Padua, and is said to have been one of the most famous philosophers and physicians of his times; but he was "*suspected of magic*, and "prosecuted on that account by the Inquisition." He also, it is said, endeavored to account for the wonderful effects which often happen in nature, without attributing them to angels or demons, and to have laughed at sorcerers and their nocturnal meetings." Who, in this age, knows what is contained in his "156*th Disputation of his Conciliator*?" The answer may be, not only that no one knows, but that no one cares;—very well, but how can any one deny that Mesmerism may find proofs there? The argument against Mesmerism, I am supposing to be, that the world has known nothing of this subject in ages gone by; and yet who can assert this and say at the same time he neither knows nor cares what ingenious men have written upon the mysteries of nature in untold ages past?

Who, in this age, knows what is contained in a tract entitled De Incantationibus, written in the 15th, or beginning of the 16th century, by Peter Pomponatius, who was born at Mantua, 1462, and who is said to have been "endowed with excellent parts, and accounted one of the greatest philosophers of his age?" Some of the books of this man were burnt under a persecution, and the man said to have been an "infamous magician, who vented some impious things about the occult virtue of sorcery and imagination;" yet it is said of him "that he believed nothing of what is said about magic and witchcraft." Bayle says "he lays great stress on I know not what virtues that some men have had, whereby they produced extraordinary effects, and alleges many instances of it; but his adversaries do not allow that they are true, or free from magic." And again, another writer says "that Pomponatius brings many examples to prove that there is a special and individual virtue in some men to perform wonderful things, particularly in the cure of diseases," &c. This was some 350 years ago, long before Maximilian, Holt, or Mesmer, were heard of in the world. Who can suppose this allusion of Pomponatius to a mysterious virtue 'in some men,' by which they effect cures, can have been utterly without foundation? Yet what is it but a sort of anticipation of the Mesmeric theory or practice, so far as the power of effecting cures enters into that theory?

But I have not undertaken to advocate the theory. I only say there are some facts reported long since, incidentally,—so far as Mesmer's theory is concerned,—which seem to favor it; and, if the Mesmeric doctrine could be established from independent sources, then these facts would undoudtedly be placed in direct relation with it, and the two would mutually throw light upon each other. After reading these extracts, let me know what you think of the matter.

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SWEDENBORG'S ANIMAL KINGDOM.

(*Continued.*)

The blood is the product of the whole organic system. The brain and lungs give it soul and spirit; the abdominal viscera, by means of the food, supply it with body or embodiment; wherefore each globule is an image of man inasmuch as it has both a soul and a body. Every viscus contributes a distinct share to its generation and regeneration. The animal spirit is its organizing principle. The blood consists, in the language of Swedenborg, of mere simples; that is to say, it contains the primal unities of all the series in the body, and being readily resolvable into each, can give origin and seed to all its possible compounds, whether they be solids or fluids: Nothing exists in the body that did not pre-exist in the blood. As it is distinctly compounded of a triple order of substances, so during each round of the circulation it is distinctly decompounded or resolved into each. Its spirit, spiritous lymph, and bodily portion are sundered as often as it circulates; the former is claimed by the cortical substances of the brain; the lymph is rendered back to the blood in a circle by the lymphatics; and the embodiment, by the veins. The reason why it undergoes this revolution is, that thereby, when its simples are disengaged, it gives birth to all the vital fluids, and renovates all the solids; and moreover submits itself to perpetual purification, self-examination, or lustration. Those portions of it which are no longer of use are thrown out of the system by various excretions, the loss thus occasioned producing that sense in the little veins all over the body, which in the aggregate we term hunger and thirst.

The blood of the jugular veins which has been de-spirituated in the brain, is vivified afresh in the lateral sinuses, by a spirituous lymph sent forth from the pituitary gland, which is the conglobate gland of the cerebrum. Thus the effete spirit of the brain unites with its effete blood, and both together serve as menstruum, medium, or saliva for introducing the new chyle into the sanguineous system. It is for this reason that the thoracic duct is inserted at or near the bottom of the jugular vein. But the circulation of the blood, although it may be considered by itself, yet like all things in the body, is but a part of a more universal order, termed by our author the circle of life; and which involves in one the circulation of both the blood and the spirits.

All the fluids of the body institute circulations after the image of the circulation of the blood. Such may be readily seen to be the case with respect to the saliva, the bile, the fat, &c., &c.

The circulation of the animal spirits, supplied to the brain through the corporeal fibres from the ethereal media of the universe, as well as by the blood of the carotid arteries, and elaborated in the cortical substances, is not a simple circle, like that of the blood, but a transcendent circle, leaping from series to series, omnipresent in all things and conjoining all. For the spirit is propelled by the cortical substances or "corcula cerebri" through the medullary and nervous fibres; by the nervous fibres into the arteries, where it is inserted into the globules of the blood, and constitutes their life and soul; and it is carried back in the blood by the carotid arteries to the same cortical substances, there to be purified, conjoined with fresh spirit, and begin its circle anew. The animation of the brain is the first moving cause of the circulation of the spirits; the respiration of the lungs the secondary or corpereal cause, which operates by a general traction upon the external membranes of all the organs, vessels, and fibres of the body. For the brains give the universal or most internal life of the body, and in this respect, as propulsive causes, represent the capillaries or distinct corcula of the nervous circulation; the lungs, the general, or most external life, and represent the one heart of the same.

The above doctrine may conveniently suggest the idea, that points of analogy are not points of sameness or identity, but in reality, of harmonic difference. The circulation of the blood is one thing, and images tha of the spirits; but notwithstanding the circulation of the spirits is quite another. Each fluid has its own peculiarities, and its circle is applicable only to its own sphere. It is an abuse of analogy if we use it to destroy and not to reconcile differences; and if so abused, it becomes a childish and paltry instrument, totally inadequate to guide the mind through the labyrinths of nature. To revert to the present case, it has been attempted to be shown, that the circulation of the animal spirits is a simple circle, precisely like that of the blood. But for the purposes of analysis, it ought to be paralleled with what is higher than itself, and not with what is lower. Let us take as illustrative the grand circle involved in generation; for "all things that involve an end constitute a circle." In this example, the male and female conspire to generate a new being; the male fluid is propelled out of the body into the body of the female, or from one series into another; here it is developed or embodied, and is again propelled from the maternal series into that of the external universe; afterwards it is developed inwards from the body to the mind, and when its circles of education and information are completed, it returns as a member of that society from which it proceeded, to commune with the principles that gave it origin in the parents, to amplify their sphere, and enlarge their amount of social life. The circulation of the spirits is more like this of generation, than like that of the blood; for being a universal it belongs to the sphere of universals, and is but poorly imaged in particulars, which are, indeed, but portions of itself.

We have already treated of the limits of the circulation considered as proceeding from the heart, and have had occasion to hint at the attraction exercised by the several organs. The truth is, that the latter demand different and varying quantities and qualities of blood at different times, according to their different states as determined by and determining the state of the body; and that the heart and aorta, as a propulsive power, can have no share in apportioning these. Hence an attractive force is given to the viscera themselves, whereby all the commodities in the body are placed at their disposal; or as Swedenborg says, "they are enabled to summon what they require, from the universal mass of the blood." For each organ, and each part and particle of each, is an individual member of a perfect society, possessing the form of a stupendous rationality whereby to discern its wants, and of an equal liberty to enable it to supply those wants from the community, on the condition of reciprocation of use: not the smallest intrusion upon its individuality by the common powers is permitted for a moment; for should this take place, disease is the inevitable consequence. But let it not be imagined that the attraction exerted by the organs is of a violent character, or that their movements are other than gentle and tranquil. It is unnecessary that such should be the case; inasmuch as there is always a propulsion or incitation corresponding to the attraction or invitation, so that what the organ demands is immediately supplied. For when the unities or leasts of an organ expand to draw in their blood, their vessels contract to propel it; and by virtue of the simultaneous expansion of the unities and contraction of the vessels, the size of the organ is scarcely altered, and its motion is almost imperceptible.

The motions of the organs of the body are an important subject in Swedenborg's theory; occasionally seen in glimpses by many writers, among whom may be instanced our own philosophic Glisson,* yet not recognized by them as a necessary law. It has been remarked before, that the lungs and the brains give each organ a universal motion, at once internal and external. But it would be an error to suppose, because the motion communicated is one and the same, that therefore it is not received and appropriated differently, in other words, modified, by the organs themselves. So truly is this the case, that the motion takes place in every instance in accordance with the geometrical form of the organ, as made up of lesser and least parts, and these forming axes, diameters and circumferences, general, specific, particular, and singular. Always indeed it is expansion and constriction, these being nature's own motion, and pervading the universe, elemental, material, and organic. Nevertheless it is an expansion and constriction proceeding according to the form of the organ. As a general rule, the most fixed point of every organ is its centre of motion, from which its expansion and constriction begins, to which it returns, and in which it terminates. For each organ is an individual, made up of an affinity of lesser individuals, whereof one and all live their own lives, exercise their own forces, and perform their own actions, and only rely upon the general system for supplies, which they can convert to use in their own way, and according to their own essence: and this, no matter whether the supplies be supplies of blood and fluids, or supplies of motion. The material always comes from without, but the disposal of it from within. These motions convert the organs from powers into forces; so that it may be stated as a law, that the heart and the blood generate the body; but that the brain and the lungs make use of it, and wield it as an instrument of action. As a rude illustration of this, we may instance the case of human machines. The fabrication of a steam engine by artificers in the workshop is one thing, and analogons to the formation of the body by the blood, the vessels, and the heart; but to make use of the same engine requires altogether a different series of powers,—fire, water, steam, and a new order of workmen, analogous to the brain, the lungs, and their motions.

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* Glisson is well worth consulting on the motion of the liver; see his "Anatomia Hepatis," pp. 62, 63, 67, 68, 69; 12 mo., Amsterdam, 1659.

As motion is a necessary condition of actual life in the whole body, and all its organs and their parts, so likewise is sensation. For without sensation the organs would not be able to exercise their attractions and repulsions with benefit either to themselves or the system. The cerebrum is our general sensorium, in which we are conscious of all the impressions that rise from the external sensoria, of sight, hearing, smell, taste and touch; which sensoria occupy the circumference of the body: but the cerebellum takes cognizance, apart from our consciousness, of all the impressions that are made in the interiors of the body; namely, of every contact,* in general and in particular, between the solids and the fluids. Therefore, the cerebellum is aware of the whole state of the kingdom of the body in its minutest details, and disposes and governs it agreeably to the ends for which corporeal life is instituted. Now, the human frame, unlike that of other animals, is co-ordinate with the *whole* external universe; it is an organization co-related and responsive to the entire series of the natural creation. The brain is a form of the elemental kingdom; the lungs, of the atmospheric world; and the abdomen, of the terraqueous globe. Nothing less than this can be the case, inasmuch as the body descends from the highest sphere to the lowest, and, by the heart and its vessels, reascends from the lowest to the highest, and thus doubly draws with it the order of the universe. Each degree of the body involves a sensation of its external co-ordinate. Of the external senses specifically, sight is co-ordinate with the ether, and apprehends its modifications; hearing, with the air, and perceives its vibrations; smell, with the effluvia of matter; taste, with the essences of body; and touch, with body in its ultimate or concrete form. The first two senses therefore are atmospheric senses; the latter, material, and may be fitly regarded as different forms of touch. There are then three grand genera of touch. The first genus prevails all over the circumference, and constitutes touch proper: the second prevails in the innermost parts of the body, beginning from the tongue; namely, in the œsophagus, the stomach, the intestines, and all the viscera of the abdomen, and at the threshold of this series is called taste: the third genus prevails likewise in the innermost parts of the body, but beginning from the nares; namely, in the trachea, the larynx, and the lungs, or in the viscera of the thorax, and at the entrance to these is called smell. The sense of taste again is divided into as many species as there are viscera of the abdomen, and these species into as many particular differences as there are unities in each viscus. "From the variety of the particular sensations of one viscus, a common sensation arises; and from the variety of sensations of many viscera, a still more common sensation arises. And from all and each of these sensations conveyed by the fibres to the cerebellum, the soul, by means of this sense, here apperceives specifically the states of chylification, sanguification, and purification; in a word, of nutrition; and according to the perception, disposes those viscera to the conservation of the whole and the parts, which is the effect and use that this sense produces." The villi on the internal surfaces of the abdominal organs are the papillary sensoria of the above sense.

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* It is suggested to the medical reader to consider, whether Swedenborg's theory, that the sense of touch, and its organism and accidents, pervade every particle of the body, lends any support to the remarkable view taken by Hahneman, that seven eighths of the chronic meladies afflicting the human frame are forms of psora, and that *all* such maladies are referable in some sense to three types of skin disease.

* * *

Surgery and Mesmerism.—On Tuesday morning last we beheld one of the most interesting exhibitions which it has ever been our fortune to witness. We allude to an operation for strabismus (squinting,) performed by Dr. Ashley, No. 40 Hudson street, on the person of a youth some nine years old. The lad was first placed in a magnetic sleep by the Doctor, which process occupied about five minutes, after which, aided by an eminent medical professor, the otherwise painful operation was performed of cutting the contracted muscle of the eye, and restoring that organ to its appropriate equilibrium. We are told that when this operation is performed, while the patient is awake, two or three persons are required to hold him in the proper position; but in the present instance, not a muscle was moved, and the boy lay as still and composed, as if he enjoyed a gentle slumber.

There were present during the operation, several highly intelligent members of the medical profession, besides gentlemen of the press and others, the scepticism of several of whom was entirely removed by the interesting experiment, among which class we are ourselves included. The old saw says, 'seeing's believing,' and in an instance where there could be no possible collusion, we do not feel at liberty longer to doubt the practicability of rendering mesmerism subservient to the difficult practice of surgery in almost every case.—[Golden Rule.

THE

SAINT LOUIS MAGNET.

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FOURTH PROPOSITION.

Natural Means of Restoring the Diseased Body to Health.

We now take a pleasure in calling the attention of our readers, to our fourth proposition. When principles are reduced to propositions, the solution may be expressed in very few words. BREVITY and TRUTH, constitute our motto—to give the greatest amount of matter in the least space. We have, perhaps, studied this motto, or the two principles of which it is composed, more than we have style or *quantity.*

Quantity and Style, however, seem to constitute the *mania* of this age, not only in writing but in speaking. Those who can make the longest and most flowery speech—write the largest and prettiest book, are the greatest fellows. In short, quantity, smooth sentences, and pretty words engross the whole attention of our writers and speakers,—to write a book, a *big* book, and to make a speech, a *noisy* speech, no matter whether they contain a single idea or not! Truth, Brevity, Strength, have no weight when tried in the balance with style and quantity.

Disease, we have shown in a preceding article to be an effect, caused by a departure of organized bodies from the laws which govern those bodies. To solve our fourth proposition, then, we must show how the diseased body may be restored to its healthy condition.

The fewest words in which we could express the solution of this interesting problem would be in stating the fact, that to return to the laws which govern organized bodies, and strictly obey them would in most, if not in all cases, restore the body to health. In the language of ST. PAUL, "Be temperate in all things." Where the disobedience of the law or laws have not been too great—the unpardonable sin committed; or, a return to obedience, has not been too long delayed; then strict obedience to these simple laws of our nature must prove successful in restoring health to the diseased body. Otherwise, law and the conditions upon which it is based would be null and void, immutability would become mutable, certainty, doubt and order would be merged in confusion. Hope would have no claim upon the future, and existence would become annihilated !

But hear the sacred promise, based upon law and justice: "He who sinneth and abideth not in the law, shall be damned; but if he repent and abide in the law, his sins *shall* be forgiven him." I quote from memory, and am not quite sure, that I use the language of the Divine writer verbatim; but, I am quite certain that, I give the true sense of the writer; and that is, he who violates the law shall be damned (*punished;*) but if he repent (*returns,*) and obeys the law, he shall be forgiven; (*ie.*) the punishment shall cease. This we hold to be good Scripture, and it is most certainly true philosophy. No philosopher, or intelligent christian doubts, that the word *sin*, either in its broadest or narrowest sense means the violation of a law, and that *damned* means to be condemned to receive the punishment attached to the violation of the law; and that *repent* means to return to the obedience of the law; and *forgiveness*, the ceasing of the punishment, upon strict obedience to the law.

The position which we occupy, will bear the most rigid test of scripture and philosophy too. We are, therefore, warranted in saying, that the only safe and correct means, to restore the diseased body to its healthy condition, is, TO STRICTLY OBEY THE LAWS OF OUR NATURE—"To be temperate in all things."

[*Continued.*]

ATMOSPHERIC ELECTRICITY.

(*Concluded.*)

Aurora Borealis.—After the identity of lightning and the electric fluid was established, the explanation of the Aurora Borealis was easy. Mr. Dalton gives a spirited description of one, which appeared on the 13th of October, 1792. He says, "There first appeared a dull red light, sufficiently strong to read by; all on a sudden the whole hemisphere was covered with streams of light, and exhibited such an appearance as surpasses all description. The intensity of the light, the prodigious number and volatility of the beams, the grand intermixture of all the prismatic colors in their utmost splendor, variegating the glowing canopy with the most luxuriant acd enchanting scenery, afforded an awful, but at the same time the most pleasing and sublime spectacle in nature. The point to which all these beams and flashes tended, was in the magnetic meridian, and as near as could be determined 15 ° or 20 ° south of the zenith. The Aurora continued, though diminishing in splendor for several hours." When the Northern lights appear in this country, they occur chiefly in the Spring or Autumn, and usually after a period of dry weather. They are seen more rarely in countries near the equator, but are visible almost constantly during the long winters in the polar regions, and with a lustre of which we can form but a faint conception.

In the Shetland Islands they are called "*merry dancers*," and are the regular attendants of clear weather, giving a diversity and cheerfulness to the long winter nights. In Hudson's Bay the refulgence of the Aurora is stated to be frequently equal to that of the full moon. In the Northern latitudes of Norway and Sweden, their brilliancy is so remarkable and constant, as to enliven the path of the traveller during the whole night. In the N. E. part of Siberia, they are also described as moving with incredible velocity, and clothing the sky with a most brilliantly luminous appearance, resembling a vast expanded tent, covered with gold, sapphires, and rubies.

The reasons why this phenomenon has been attributed to Electricity, are, 1st. That whenever it appears, the atmosphere is found replete with the electric fluid. 2nd. It equally, with electricity, influences the magnetic needle. It puts on appearances different from lightning because it occurs at a considerable altitude above the earth, where of course the air is much rarefied. If this be the case, it will be proper in order to imitate it, that we should pass the electric matter through a very rare medium; and this is done with a flask similar to the following. It may be made of a common oil flask, though infinitely more imposing if of four times the size; its thicker end has a portion of it covered with tin-foil, sufficient, that when held by the hand, the glass itself may not be touched. The neck is fitted with a brass cap and ball, with a pointed wire projecting inside; this ball should take off, and show underneath it a screw, with a valve opening outwards, that the flask may be partly exhausted of air. No tin-foil is necessary inside, which may be also quite dry.

Ex.—To imitate the aurora borealis, make the flask dry and warm, partly exhaust it of air, then screw on the ball,—hold it by the tin-foil of the thick end, and present the other to a charged conductor, flashes of a beautiful reddish purple light will pervade the glass flask exactly similar to the phenomenon wished to be imitated.

The following is a long tube of glass, fixed to a foot, and furnished with a cap and ball, and pointed wire at top, with the valve at the foot. It is first to be fixed to an air pump or exhausting syringe, and the air partially drawn out; when a spark being passed through it, by touching the upper ball by a wire communicating with the prime conductor of the machine, it passes down the tube to the foot, and, according to the density and quality of this medium, so will be the color of the flashes, while their frequency and brilliancy will depend upon the quantity transmitted.

Falling Stars.—Whenever the electric fluid is at a more moderate height, and in a more concentrated form, it occasions those electrical appearances, known to us as falling stars or meteors; these are generally considered indicative of rain, and not without some cause, inasmuch as rain, hail, snow, &c., are always produced by any sudden electrical change that takes place.

They may be imitated by passing a shock through a long exhausted tube, but not exceeding half an inch in diameter.

Rain, Snow, &c.—It has been said by some, that the reason rain, &c., falls in drops, and still more so, why snow appears in light fleecy flakes is owing to electrical repulsion, as is somewhat proved by the experiment of the expansion of a fleecy feather when driven off by an excited tube, and also by the spun sealing-wax.

Earthquakes.—Earthquakes also have probably an electric origin, they have been considered as immense shocks passing through the earth; the circumstances in favor of this theory are the rapidity of their passage, the convulsive motion which they occasion, and that they are always attended by lightning and other electrical appearances.

Fiery Rain.—Thus also can we in some degree explain the fiery rain mentioned in the Scriptures, and by various ancient writers, certain it is that every drop of rain which falls during a thunder storm is charged with the fluid, and therefore contributes to divest the storm of its fury.

Waterspout.—The water-spout, that wonderful and terrific object, is too easily explained by electric attraction, to leave any doubt that its cause is a highly charged state of the air, and we are confirmed in this conclusion, by the means taken to dispense it, which is by firing cannon and pointing sharp weapons at it.

Whirlwind.—What the water-spout is at sea, the whirlwind is on land, a current of the electric fluid passing along and carrying with it the light bodies it passes over. If the currents or columns of electric matter fall upon a surface of the earth, covered by non-conducting substances, such as the scorched sands of Africa, the sands are elevated, moving along with the wind, and constituting what are called the *moving pillars of sand of the Desert.* In those burning climes, the air is so dry, and at the same time insulated from the earth, by the parched sand, that large tracts of electric matter move almost in a pure uncombined state, appearing like a blush in the heavens and producing all the effects of a deprivation of air, by suffocating every animal exposed to their influence. The Camel, the Dromedary, and the Ostrich, instinctively bury the nose in the sand, and the travellers in the ill-fated caravan, fall flat upon their faces to avoid being immersed in the electric fluid. In this state it occasions such combinations and decompositions that its effects are felt even across the Mediterranean as far as the shores of Italy, forming the Sirocco of Volney, and the Simoon of Bruce.

The foregoing is a synopsis, rather than an explanation of the natural effects of electrical agency—nor is it, in the very limited manner in which it has been described, to be considered wholly proved, that earthquakes and falling meteors, are attributable to this active power,—on the contrary, the whole subject needs reflection, and close comparison of circumstances and effects—and which perhaps a future opportunity, will be allowed us to consider and to explain.

* * *

IF MAGNETISM BE TRUE, WHO CAN BE AGAINST IT?

The great and grand inquiry respecting Magnetism, should be, *is it true?*

Now, in making the above remark, we do not mean to refer particularly to the removal of the " head-ache," the paralysis of an arm, so as to produce rigidity to the muscles, and destroy sensation, so far as to enable the surgeon to cut off an arm without the experience of pain by the patient; we do not speak of the utility of the principles and their power in throwing individuals into a deep sleep for the removal of any local or general debility, or in producing a uniformity in the Magnetic forces of the system; we have no particular regard to the inestimable importance of Magnetiem in so far producing insensibility to the body, as to enable the surgeon to penetrate, with his knife, the very bottom of an aggravating Cancer on the human breast, without producing uneasiness or pain to the patient; nor did we intend to speak of the astonishing accuracy with which the sympathetic Clairvoyant may describe other countries, persons, and things known to the person with whom he is in communication;—these are doubtless all truths, and we should have been safe in speaking of them as such; but we go farther—far beyond all this, however straining upon the credulity of some, it may be—we refer especially to the principles of independent or *positive* sight, when one is in a Magnetic state, or when the mind is exalted to *perfect vision!* We have shown, as we believe, satisfactorily, the truth of the principles until we arrive at this noble, and important, but startling inquiry: Is the mind of man capable of being so immeasurably exalted above the confines of common thought as to enter at once into the realities and mysteries of the invisible world, and range uncontrolled from place to place; from earth to heaven; from world to world, and discover planets or systems unnoticed by mortal eyes? This is the question! One which at the present advanced age, is proper—and one, therefore, which must arrest the attention of the thoughtful—the philosopher and philanthropist.

We now call attention to some developments which we briefly hinted at in our last number, and to others equally as strange from Mr. Davis, of New York. Sometime since, Mr. Alverson, while Magnetized and speaking of the planetary system, remarked that one planet has just been discovered. This announcement was unexpected. He stated also that another planet would be discovered within a year.

This planet is the *ninth*, to which Mr. Fishbough, in the communication which follows has especial reference. And in that communication, it will be seen, that Mr. Davis had spoken of, and pointed out the 8th planet *in March last*, before even an anticipation of the existence of such a planet was announced by any other person known, for it was only discovered by Mr. Galle, of Berlin, Sept. 23, and seen from London, Sept. 30. On this point, there can be but one conclusion, for names of witnesses, dates, &c., are given by Mr. Fishbough. And there appears to be a striking coincidence between the announcement of Mr. Alverson and those of Mr. Davis! Mr. Dwight Kellogg of our village, and several other gentlemen were present at one announcement of Mr. Alverson respecting the discovery mentioned above. But it may be supposed that there has been a correspondence between some of the witnesses of New York, and persons who witnessed the experiments here. We would not say that it is impossible for such to be the case, but we believe there has been no such information transmitted; nor did any one here, even suppose that Mr. Davis had made the discoveries, till we had the pleasure of receiving the announcement from Mr. Fishbough, through the *Daily Tribune* of the 10th ult.:

From a paragraph in the "Tribune" of the 28th ult., credited to the "New Haven Paladium," and bearing the signature "O," (doubtless Prof. Olmstead,) I learn that news has, by a late arrival from Europe, been received at Yale College of the actual discovery of an eighth Planet! It was discovered by M. Galle, of Berlin, on the night of Sept. 30. The existence of this body was *inferred* a few months since by the French Mathametician, De Verrier, from certain disturbances in the motions of Uranus; but the announcement of this *inference* was not made in this country before some time in May or June last.

Not to deprive the discoveries of this body of their deserved honors, and with no attempt to excite the marvellousness of your readers, I would say that the existence not only of an 8th but a 9th planet was distinctly announced in March last. I will explain: Your readers were informed some time since, that A. J. Davis, while in an abnormal and exceedingly exalted mental condition, is engaged in the dictation of a book in explanation of the whole structnre of the Universe, and developing that knowledge of the universal Laws of Nature on which can be based an organization of society on principles of harmony and reciprocation, the same as pervade the celestial spheres. His abnormal condition, (induced by the manipulations of another person,) is analogous to *physical death;* when the spiritual principle is free from its shackles, and appears to have immediate access to every species of knowledge, and the reasoning power is entirely unclouded.

The following extracts concerning the 8th and 9th planets, are from two lectures given by him, one on the 16th, and the other on the 17th of March last. In order that what is said upon the planets may be understood, it is necessary to precede the extract with a few of his remarks upon the sun.

"The wonderful sun or centre to which our solar system belongs, may be understood as being a distant and extreme planet of another system, existing prior to its formation. And in accordance with the general plan of suns and worlds in the universe its planets and satellites may be considered as satellites and asteroids belonging to a planet, and the planet as belonging to a sun.

"The constitution of the sun is an accumulation and agglomeration of particles thrown from other spheres; and these became united according to the law of mutual gravity and inherent and mutual attraction. Its ingenious composition contains heat, light and electricity, the successive developments of all primeval matter existing in an agglomerated condition, and subjected to the general and universal law governing all matter."

After explaining the *rotary* and *orbicular* motion of the sun, (for the *causes* of which he accounts,) he proceeds:

"Therefore the great internal portion or the centre of the sun, is an immense body of liquid fire, evolving successive heat, light and electricity, as developed and purified particles of the interior composition. The evolved atmosphere may be understood as being a part of the great body,—still an emanation of the internal by reason of its own constitution. This atmosphere, or immense zone of nebulous and accumulated particles, extended to the circumference of the orbit that the *immense planet occupies and traverses as a cometary body. This is one more planet than is now known, or has yet been detected* by the observations made through the agency of the most powerful symbol of the human eye. (The telescope.)

"*Eight* planets have been recognized and determined as nearly beyond all doubt. Still the 8th and 9th are not recognized as bodies or planets belonging to our solar system. But the orbit that the last one occupies, was the extreme circumference of the atmospheric emanation from the sun."

After proceeding with various remarks upon the laws of emanation, condensation, the origin of rotary and orbicular motions, the progression of primeval planetary matter to the development of the various (*so-called*) *elementary* substances, &c., he continues:

"The *ninth* planet, or cometry body, being composed of particles accumulated by the motion of the great sun, observed the same plane by the same specific force, but assumed a station in accordance with its magnitude; and obeying the laws of reciprocal gravitation, it occupied its assumed orbit at a distance proportionate to its rarity, and in accordance with its peculiar constitution.

"The *eighth* planet was next evolved, observing the same general law of motion, and the same principles of formation; and was situated *within* the *outer*, merely because its constitution was more dense than the first one evolved. Its occupying therefore the station and sphere thus described, is only in harmony with the established principles of gravitation, and general and rotary motions.

"By virtue of the two great motions which the sun has, the successive formations of the planetary bodies were produced. As the *eighth* and *ninth* planets have not yet been recognized as belonging to our solar system, there can be no conception of the original magnitude and diameter of the sun, as including its extended atmosphere."

After farther philosophical remarks upon the peculiar elements, conditions, circumstances, &c., &c., as engaged in the formation of celestial spheres, he says:

"But let it be deeply impressed, that the peculiar circumstances and conditions under which these elements may be situated, will produce corresponding effects, according to the cause which occasions the manifestation of such consequences. This observation will lead to a proper understanding of the amount of heat and light which the *eighth* planet receives from the sun. The ultimate discovery of this celestial body, and its revolution and diameter being specified, will contribute greatly to the interesting subject of astronomy, particularly when the aberrations and refractions of light are known as they occur between it and the sun around which it revolves.

"Its density is four-fifths that of water. Its diameter is unnecessary to determine. Its rotation and period of revolution can be inferred analogically from the period that Uranus observes in its elliptic and almost inconceivable orbit. The atmosphere of the eighth planet, is exceedingly rare, containing little oxygen, but being mostly composed of fluorine and nitrogen. No organic constitution that exists upon the earth, could exist there alive for one moment. The human eye would be a useless organ; for light there is of such a nature as to render its *darkness*, even at the darkest period, several hundred degrees above the present light emanating from the sun! It has, like Uranus, six satellites. These were evolved and formed by the two motions given this planet; the farthest from the primary being the extent of its original composition, and the nearest satellite being the accumulation of dense atoms near the planet. * * * * * It is wholly unfitted for the habitation of any organic constitution; yet life will ultimately cover its now undisturbed surfaces."

That the above extracts are genuine, satisfactory *demonstration* can be given to any one who may require it. Their existence in manuscript, as a part of Mr. Davis' course, has been known by many persons, and whose testimony will not be denied by any who know them. The lectures have, at promiscuous times, been witnessed by I. Kinsman, No. 1 New st., T. Lea Smith, M. D., 9 Murray st., (now in Bermuda,) H. G. Cox, 73 White st., Theron R. Lapham, 308 Stanton st., B. S. Horner, 9 Murray st., and others.

In the same manner, Mr. Davis has revealed the formation, constitution, geological developments, *inhabitants*, &c., of all the other planets of our system. Indeed, his books aims to present in a *general* way, a knowledge of the constitution, laws, principles and developments of the whole universe. He displays while in his superior state, a power of analysis and generalization perfectly unparalleled, and absolutely overwhelmihg; though while in the normal state, he is almost entirely *uneducated*, and he is now only about 20 years old. If these are facts, (and if not, their falsity *should*, *can*, and WILL be exposed,) the reflecting mind cannot fail to recognize the *unspeakable* importance of their bearings. The only rational explanation of this pscychological phenomenon is that which Mr. Davis himself gives, viz: that his mind, while in the abnormal state, receives the influx of the science understood in the *spiritual spheres* with which his mind associates.

Now, that there is positive proof that Mr. Davis' discoveries, while in an abnormal and highly exalted mental condition are correct, and that Mr. Alverson, while in the same mental condition has corroborated the statements of Mr. Davis, it must carry conviction to the thinking mind of the truth of this most useful of sciences. These are facts which cannot be overthrown, and they cannot fail therefore, to have a proper, and their desirable impression upon the public mind.

And now we repeat, if these principles be true, who can be against them? They will force their way upon the admiration of the great and good. Like the genial rays of the morning sun, they will drive back the darkness from the face of the earth; and the powers of darkness, with their combined sneers, sarcasms and opposition can no more resist or destroy the onward march of truth, or prevent its warming influence and irresistible light, than they can drive back, or resist the light of the king of day.

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EFFECT OF ELECTRO-MAGNETISM ON THE ACTION OF THE HEART.

Let an electric stream, by means of a magnetic-electric rotation apparatus, pass through the medulla oblongata of a frog, when the palpitations of the heart will cease as long as the rotation is in action; and it will begin again, in the same way as before the experiment, a few sec-
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onds after the rotation has ceased. This experiment produces, in fact, tetanus in the whole of the body. When any other part of the spinal marrow is exposed to the same electric stream, tetanus is equally produced; but the heart continues its movements without interruption. Finally, when the whole skin of the frog is subjected to this stream, so that one wire lies close to the heart, tetanus in the whole body is produced, but without affecting the heart. Directing the stream upon the ramis intestinalis nervi vagi, lying before the lungs, produces the same effect as upon the medulla oblongata.—[Lancet.

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REMARKABLE MESMERIC CURE.

At a lecture given at Derby, on Wednesday week, Mr. S. T. Hall related the following remarkable case:—It is that of a young lady of whose mind and disposition, to say the best I could, would be no compliment; but whose bodily powers were so worn down by a grievous internal disease, and a natural delicacy of constitution, that some years ago, she was unable properly to balance herself when walking, and so fell from the top to the bottom of a flight of stairs, severely bruising the back of her head, and various portions of her spine, step after step, during the entire descent. From the description I have heard, the paroxysms and tortures to which she became subject, must have been most awful. Notwithstanding her previous debility, so powerful were the convulsions she afterwards for some time underwent, that it often required the efforts of two or three strong men to prevent her being thrown by them off the bed. To the relief of these, nature came at length with an attack of paralysis, which entirely prostrated her, and for nearly three years she lay unable to help herself, as it was even with difficulty she could be helped by others, since the slightest application of a camel hair pencil to the region of the spine, was sufficient to occasion the most excruciating pain. The best advice that could be obtained, afar or near—every remedy that medical authority could suggest to her kind and anxious friends—had been tried, and had left her little better than it found her; and when I was first introduced, she was not only suffering from exceedingly acute pain, but appeared to be as weakly and as inert as an infant. The results of my visits have since been attributed by some of our opponents, to the effect of a powerful imagination. But as ever since the cessation of her convulsions, one of the young lady's legs had become permanently foreshorted, so that when she was made able to stand, she could not bring the heel within two inches of the ground; and as this physical, and not imaginary contraction, has now been entirely removed—further, as a constant and anxious medical friend of the family had such faith in the patient's integrity and sound judgment, that he had declared long before, if mesmerism could produce any effect upon her, he should fully believe her report of it—such an interpretation is as preposterous and pitiful as the spirit that dictates it. Whatever the agent between my passes and her frame, or whatever name it may be called by—and 'the rose by any other name would smell as sweet'—this truth is clear to all who know her, and though her sufferings had been all and more than I have described, up to the commencement of my present series of visits to Derby, and though my treatment has been without the aid of drugs of any kind, she is not only now comparatively free from pain, but goes freely about the house, enjoying the society of her delighted friends, and occasionally walks, unsupported, in the garden, gathering flowers with her own hands, and thankfully reaping additional health from such a renewal of her acquaintance with nature." We believe, says the Derby Reporter, that we are perfectly in order, in saying that the patient thus far restored, is Miss Longdon, of Friar Gate, well known in Derby as a kind and intelligent member of the Society of Friends, whose parents, and others of the family connection, were present at the lecture, and concurred in all that was advanced in relation to the case by Mr. Hall.—[Bath Herald, England.

UNIVERSAL POISON.

Opinions of Burdell's Experiments upon Tea.

Dr. John Burdell, an eminent dentist of New York, uses a decoction of hyson tea to allay the sensibility of the nerves of diseased teeth. One pound in a quart of water boiled down to a pint. Four drops of this decoction killed a rabit; when boiled to a gill, 4 drops kill a young cat. These facts, if there be no mistake in the experiments, prove that tea is as mischievous as alcohol, and Mr. Graham will do well to spread it before the community, and save himself hereafter, this trouble of argument and the testimony of opinion on the subject. Let our friends try it on rats and mice, dropping it on little pieces of biscuit, or cake, putting them in the way of the vermin.

Some may ask "how the whole community have been poisoning themselves so long, and no one ever found out before?" It is very certain that the physical condition of civilized man, has greatly degenerated since the early days of Greece and Rome, and ancient Britain. It is clearly unfair to attribute the whole effect to the operation of one cause. In searching for all the causes we have found that silk and cotton stockings, and corsets, ardent spirits, gormandizing and mercury, lancets, opium, and antimony, &c, have acted no mean part in peopling the regions of the dead with the interesting subjects of morning promise and meridian usefulness, and in wrestling from the few that live to a good old age, a large share of all that renders life desirable to themselves, useful to their friends, or terrible to their enemies; and who knows but that tea and coffee, hot bread and pastry, how pleasant to the eye and desirable to "make one wise," may not contain the deadly poison, which not less surely, because imperceptibly, abridges our health, happiness and life on earth.

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A REMEDIAL AGENT—ANIMAL MAGNETISM.

Dr. T. J. McNair:—Dear Sir: I had intended to furnish the friends of Medical reform some interesting cures, performed principally by Mesmerism, through the medium of your Magnet; provided that after they had passed through your hands, they might be thought worthy the attention of your intelligent readers. But as I have delayed so long, I shall offer but one case: and in doing so I shall submit myself to the abuse of all anti-mesmerizers; but I can bear it cheerfully for science, truth and philosophy, are on our side, as well as the unbiased and thinking community. And in my opinion, the time is near at hand, when those who oppose the science of Animal Magnetism will blush at their ignorance, and cover their shame with the veil of mystery, but if mystery be their refuge, why not deny and oppose every truth, every settled principle in philosophy, and those simple facts, which their eyes every day behold, yet they cannot account for, but to return to the subject: the case which I shall give was that of Mrs. Gleson, of Franklin, Mo., who, when I was called to see her, has been laying on a bed of severe affliction for ten weeks, and if I were to form a diagnosis of the disease, I should say that it originated from suppressed catamenia, at a very unfavorable age, combined with a constitutional disease of the chest. During this period of affliction, she had not for the greater part of the time, been able to move herself in bed, especially her lower extremities; in consequence of extreme weakness, and numerous abcesses which continued to form from the asetabulem, to the ankle, and so extensive were they, that one of them over the left hip, when punctured, discharged one and a half gallons of matter. She was at the time I was called to see her the most macerated object that I ever saw living: her recovery was despaired of by all, and her friends were anxiously watching around her bed, supposing that they should soon be called upon to bid her farewell, and close her eyes in death. I examined the patient, and was invited by her brother, into a private apartment, where I was questioned, concerning the possibility of her recovery. I told him, so far as I could see, every thing was against her; but, that I would make a more thorough examination. I then returned to her chamber, and approached her, inquiring if she would be mesmerized. She whispered that she knew nothing of it, but would submit to anything that I thought was proper. I proceeded, and in two minutes she slept profoundly under the influence of the magic trance, (as some call it,) and then I questioned her, as follows: first, can you be cured? she answered, emphatically, I can. Now, previous to this, she appeared confident that she would die very soon; and I must confess, that I, as well as her friends, was a little astonished. I again inquired of her, how long it would require? when she answered promptly, in two weeks, I shall be able to walk about the house; the witnesses by this time, considered it almost blasphemy to thus trifle with the dying woman; but I called upon them to mark well what she said. I then asked, concerning the means which should be used, and she said mesmerism should be the principle remedy. I propounded several other questions of minor importance, which were immediately answered. I then awoke her by two reverse passes, and she exclaimed, Oh! where have I been? I never slept so soundly before; Oh! I feel so much refreshed. I continued the treatment from day to day, and she improved rapidly, but Mesmerism was the only means that seemed to afford relief. She would always rejoice after being waked up, and say that she felt so much better, and, to the utter astonishment of her friends, and all who knew her, she walked about the house in two weeks, as she said. To give you some idea of the prospect of her recovery, I was in company with some individuals a few days after I commenced treating her, and expressed some hope of her recovery, when I was reproved by a grave old lady in the following language: "God Almighty may raise that woman, but no man can ever do it!" Well, I would just as soon believe God would work by this means as any other. When she began to recover, the people would come in to see with their own eyes what they had heard so much about, and witness the wonderful phenomena of Clairvoyance. The patient, when thoroughly mesmerized, would answer any question promptly that might be propounded; and, indeed, she told many things, which would seem incredible, and as many of your readers are familiar with these phenomena, I shall omit them. Well, did the patient die? No! The last I heard from her, she was enjoying the society of her friends, and attending to her domestic duties, hoping that your numerous readers may be induced to try mesmerism as a remedial agent, in its proper place, and with the best success. I submit these scattered thoughts to your own good pleasure.

Iremain yours, in the good cause of medical reform,

J. C. HEBERLING, M. D.

Cincinnati, Ohio, January 12th, 1847.

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SWEDENBORG'S ANIMAL KINGDOM.

(*Continued.*)

Thus in the living body sense and motion are universal, and mutually suppose each other, just as is the case in the mind with the will and the understanding. The deprivation of any one of these, predicates in any part of its own sphere, amounts to the death of that part, and either involves its elimination, or the death of the whole system.

But as every part of the body is a free individual, dependent upon the whole, and yet independent in its own sphere, so the body itself, altho' sustained generally by the external universe, in its interiors is altogether exempt from the power and jurisdiction of the latter. It is so far under the mundane law of gravitation, that we are forced to make our dwelling place, build up our abodes, and institute our communities, upon the soil of the earth: but intrinsically the microcosm dominates over the macrocosm. The substances and fluids in its interiors do in fact gravitate, although not to the centre of the planet, but to that of the particular motion in whose current they are involved. This centre of motion may be either upward or downward, speaking according to those relations as existing in the surrounding world; for in the body the centre of motion it always the upward; for the body itself is nothing but a stupendous series of motions, in whose everlasting currents its solids are ranged and its fluids are fluent. When any substance has attained one centre of motion, it is then at rest in the viscus or organ in whose sphere it was moving: but that very centre is only a point in the circumference of another sphere, to the centre of which the substance is now again drawn and impelled; and so forth. In short, all things in the bodily system are tending from centre to centre, and do not begin to tend to the centre of the planet, until they arrive in the last, lowest, and most general centre of motion of the microcosm, where a mixed action commences between it and the macrocosm, as is the case in the bladder and the rectum. In illustration of this multiple centripetency, the fluids in the gyrating intestines tend first to their parietes, and then into their cellular coat which is their centre of motion: this centre of motion is the circumference of the mesentery, which now, by its attraction, draws the fluids to its most quiet station or centre of motion, namely, to the receptaculum chyli. Here again, in reasoning from the external world to the internal, we may see the use of cultivating in the mind a principle of flexibility, which will enable us to modulate from the order of one sphere into that of another; for each individual subject has its own essence and peculiarities which must never be overlooked, and although formed on the model of the universe, derives its determinations from its own principles, as much as the universe does from its own principles. All things are under the law of gravitation, but the gravitation of one is not the gravitation of another, because the motion is not the same, nor the end for which the motion is instituted.

Thus in the body we have a perpetual illustration of the law, that fluids always tend from unquiet to more quiet stations; analogous to the rule in physics, that fluids always find their level; and to the principle in the spiritual world, that every man gravitates, "per varios casus, per tot discrimina rerum," to the final state of his ruling love.

This may give us some idea of the body as a machine of ends, in which there is not the least point but flows from a use, and tends to a use, and so through perpetual revolutions. For every part of the organism is a centre in itself, in that the whole body conspires to supply and mantain it; and a circumference, since being only a part, it yields its uses primarily to the whole, and only secondarily to itself. The external universe, in all its spheres, communicates with the body by a similar law. These centres, arranged according to the laws of forms, order, degrees, and series, constitute diameters and circumferences, in a word, make up the human frame, which therefore is a world of centres, or speaking generally, is the central work of creation. For there is nothing in nature but man, to which all things can minister a use.

The body is exempt not only from the gravitation but from the chemistry of the circumambient world. It has its own heat, of which there are various degrees, and which is as distinct from the heat that vivifies external nature, as its gravitation is distinct from the gravitation of nature. It has its own distinct imponderable fluids, its own atmospheric elements, its own fluids, and its own solids. It has its own complete organic chemistry, in which organization is the only end. No chemical changes that occur in the extremes of the system, (where a mixed action commences, of the microcosm and the macrocosm,) no chemical analysis of the excrements or the excretions, no experiments on the dead fluids or tissues, empowers us in the slightest degree to reason to similar chemical effects in the interiors of the body. The organs of the body themselves are the only workmen, appliances, and laboratories, by which and in which organic chemistry is performed; the contemplation of those organs and their products by the rational mind is the only path to the knowledge of such chemistry. In this chemistry there is indeed decomposition or decombination, but instead of a destruction of form and series, a purification from those elements that mar their harmony. and in the decombination, an evolution of higher forces, and an elevation into a more perfect order similar to that of the compound; and last of all, invariably a recombination. But to take a part or product of an organic being, and subject it to destructive analysis,—such a procedure can only be termed disorganic chemistry, as expressing that it is the very reverse of what goes on in the body. For this process is analogous to putrefaction, and not to formation.

Throughout nature every general is made up of its own particulars. These particulars are its unities, and constitute the limits of its series. For instance, the pulmonary vesicles are the unities of the lungs, or the essential parts from which the pulmonary series commences: the vessels and nerves that construct these vesicles are not the unities of the lungs, because they are not peculiar to the lungs, but form the groundwork of the whole body. Men and women are the unities or atoms of human society, not that they are indivisible, but that they are the simplest forms of their own series. The unities of each organ in the body are so many little organs homogeneous with their compound: the unities of the tongue are little tongues; those of the stomach are little stomachs; those of the liver are little livers; and so forth. These leasts or unities are not necessarily identical with their compounds in form, but only in function; for in the field of leasts (in campo minimorum,) similitude of use determines homogeneity, and similitude of shape is of no consequence. As every general is the sum of its particulars as a form, so it is also as a power, force or cause. The function represented by an organ is performed more freely, perfectly, and efficiently, by its unities or leasts, than by its common form. For the leasts are the subjects of higher influences, they are more proximately related to the series above them from which the power of the whole is derived, more easily exempted from the laws of gravity, and more gently and distinctly recipient of external forces. They are nearer to the substance of substances, and as were more divine. They are the all in all of their own series; the essences of which the general is the form; the actives of which the compound is the passive. In the expressive language of Swedenborg, "all power resides in the least things," and again, "nature is greatest in what is least, and least in what is greatest." The field of leasts is the field of universality, where an action communicated pervades the entire sphere as though it were but a point of space; for the more internal the sphere, the more intense the association. The stream of creative influx enters the compound through the gate of its leasts. The difference between the latter and the former is as between the ideal and the real; the ideal being represented in the leasts; the real, with its complications, and subservience to secondary laws and external circumstances, in the compound. Let us recur for an example to the highest and simplest instance; to the case as existing between an individual man, and a society or a nation. In the individual, the body is the very manifestation of the mind; the servant is the obedient and accurate image of the master. The will, as the ground of activity, flows through a series of intellectual means evoked from itself, with the smallest diminution of force and efficiency into the bodily actions, there being no separate or self-interest to absorb it either in the understanding or the body; and thus the monarchy of the first principle is pervading, absolute and complete. But how different are the actions of a society or compound individual; its interests how divided; its instruments how insubordinate; how great the distance between its legislative and executive, its will and its actions; through what inept meditations the former must pass into the latter; what an absorption is there of the first force in the passage; what a refraction and dispersion of the intentions of the government before they can ultimately be applied to the governed. Now the same is true with the simples and compounds of every series in creation, as with the simples and compounds of humanity.

We come now to speak of the formation of the body, which takes place by a gradual descent from the higher to the lower forms, or by the perpetual derivation, composition, and convolution of simples. Speaking in generals, the spiral form may illustrate the progression. For this purpose let us assume the primary fibre of the brain, without going deeper, or to the spherules of which that first fibre is composed. This fibre, named by Swedenborg the fibre of the soul, involves the spiral form and force, and carries the animal spirit. By its evolution, or what amounts to the same thing, its circumvolution into a new spiral, it forms the nervous fibre, which carries the true purer blood, or nervous fluid; and this again (for it likewise is a spiral force,) by its circumvolution generates the blood-vessel, which carries the fluid of the third degree or sphere, namely, the red blood. Hence every artery involves a triple series of circulations, wonderfully alternating with each other. For the nervous fibre, in its expansion and constriction, is precisely alternate with, or the inverse of, the primary fibre; and the same relation of harmonious discord subsists again between the blood-vessel and the nervous fibre. Thus the cause of expansion in the one sphere, is the cause of constriction in the sphere above it: to convert the expansion of the blood-vessels into constriction, the nerves are approached by an expansile agent adapted to their own subtle and active nature; for by the law of inversion, the expansion of the one—the constriction of the other. The play of this inversion, in its perfect form, is a condition of health; but in man's present state the equilibrium is too often lost, there being, in the words of Swedenborg, "a perpetual battle and collision between the three spheres of the body, namely, between the blood and the spirits, and between the spirits and the soul."

HABITS OF HOWARD THE PHILANTHROPIST.

Howard was a singular being in many of the common habits of life. He bathed daily in cold water; and, both on rising and going to bed, wrapped himself in coarse towels, wet with the coldest water. In that state he remained half an hour or more, and then threw them off, refreshed and invigorated, as he said, beyond measure. He never put on a great coat in the coldest countries; nor was ever a minute under or over the the time of an appointment for twenty-six years. He never continued at a place, or with a person, a single day beyond the period prefixed for going, in his life; and he had not, for the last ten years of his existence, ate any fish, flesh, or fowls; nor sat down to his simple fare of tea, milk and rusks, all that time. His journeys were continued from prison to prison, from one group of wretched beings to another, night and day; and when he could not go in a carriage, he would walk. Such a thing as an obstruction was out of the question..

Some days after his first return from an attempt to mitigate the plague at Constantinople, he favored me with a morning visit to London. The weather was so very terrific, that I had forgot his inveterate exactness, and yielded up the hope of expecting him. Twelve at noon was the hour, and exactly as the clock struck he entered my room; the wet, for it rained in torrents—dropping from every part of his dress, like water from a sheep just landed from its washing. He would not have attended to his situation, having sat himself down with the utmost composure, and began conversation, had I not made an offer of dry clothes. "Yes," said he, smiling "I had my fears, as I knocked at your door, that we should go over the old business of apprehension about a little rain water, which, though it does not run off my back as it does from that of a duck, does me very little injury, and, after a long drought, is scarcely less refreshing. The coat that I have on has been as often wetted through as any ducks in the world, and, indeed, *gest* on other cleaning. I assure you, a good soaking shower is the best brush for broadcloth. You, like the rest of my friends, throw away your pity upon supposed hardships, with just as much reason as you commiserate the common beggars, who, being familiar with storms, necessity and nakedness, or a thousand times (so forcible is habit) less to be compassioned than the sons and daughters of ease and luxury, who, accustomed to all the enfeebling refinements of feathers by night, and fires by day, are taught to shiver at a breeze. All this is the work of art, my friend; nature is intrepid, hardy and adventurous; but it is a practice to spoil her with indulgencies from the moment we come into the world. A soft dress and soft cradle begin our education in luxury, and we do not grow more manly the more we are gratified; on the contrary, our feet must be wrapped in wool or silk—we must tread upon carpets—breathe, as it were, in fire, and fear the least change in the weather."

"You smile," said Mr. Howard, after a pause, "but I am a living instance of the truths I insist on. A more puny youngster than myself was never seen. If I wet my feet I was sure to take cold. I could not put on my shirt without its being aired. To be serious, I am convinced *that what emasculates the body debilitates the mind*, and renders both unfit for those exertions which are of such use to us as social beings. I therefore entered upon a reform of constitution, and have succeeded in such a degree that I have neither had a cough, cold, the vapors, or any more disorder, since I surmounted the seasoning. Formerly, mulled wines, and spirits, and great fires, were to comfort me, and keep out the cold, as it was called; the perils of the day were to be baffled by something taken hot on going to bed; and before I pursued my journey the next morning, *a dram* was to be swallowed to fortify the stomach! "Believe me," said Mr. Howard, "we are too apt to *invert the remedies which we ought to prescribe for ourselves.* Thus we are forever giving *hot* things when we should administer *cold.* We bathe in hot instead of cold water, we use a dry bandage when we should use a wet one, and we increase our food and clothing when we should by degrees, diminish both.

"If we would trust more to nature, and suffer her to apply her remedies to cure her own diseases, the formidable catalogue of maladies would be reduced to one-half, at least, of its present number."

THE GREAT CHINESE PHILOSOPHER.

Confucius, a teacher of religion and morals, who, like Moses and Zoroaster, exercised an extensive influence on his own and succeeding times, and now, after thousands of years, is still venerated by his countrymen; and respected by all other nations, lived about 550 years before Christ.

He was of Royal descent, and a native of the kingdom of Lu, a province of the Chinese Empire. He led a quiet, temperate life, and was distinguished for his wisdom. He neither attempted to overthrow the existing establishments, nor to gain dominion, by deceit, over the minds of men; but only to disseminate the precepts of virtue and wisdom. He taught in cities and at royal courts. In the most impressive manner he enjoined universal benevolence, justice, virtue, and honesty. He resembled Socrates, founding and building up a pure system of moral philosophy.

Selections from the Maxims and Precepts of Confucius.

The sovereign good consists in an entire conformity with correct reason, both in our opinions and our propensities.

We should let our reason, and not our passions, be the rule of our conduct; for reason will lead us to think correctly, to speak sensibly, and to act justly.

Strive to be pure in thought; if our mind is free from evil, our actions will be also; let us never intend, much less commit a wrong act.

Does anything improper offer itself to the eye? see it not; does it strike the ear? hear it not; is it on our tongue? speak it not.

Sincerity of heart is the first virtue; nothing is so indispensible in the commerce of society, as sincerity.

We should behave at all times towards others the same as we should wish their conduct to be towards ourselves.

He who sincerely and truly measures others by himself, obeys that law naturally imprinted in his bosom, which dictates to him, not to do to others what he would not they should do to him; and whatsoever things he would that men should do to him, to do even the same to them.

Is there no one maxim by which a man may regulate his whole life? It is simply to act towards others as we should desire they should act towards us; we need but this rule alone; it is the foundation and principle of all our duties.

Let us regard our neighbors as ourselves; let us use the same standard, in judging ourselves, as that by which we judge others, and estimate their sufferings and enjoyments according to our own; so shall we fulfil the laws of true charity.

Have we in any manner done wrong to another? Let us not be backward in making reparation for it; not hesitating an instant, but nobly breaking through the restraints of pride and shame that would be our hindrance.

Return a good deed by the like; but never revenge an injury.

To return good for evil, and not to resent injuries can only be the act of a great mind.

We should abhor the crimes of the wicked; but, if they are reclaimed to virtue, we should receive them to our bosoms as though they never had erred.

We ought to be so far indulgent and liberal, as to overlook the offences of others when they show signs of repentance; our deportment should then be such as to relieve them from any uneasy sense of their former conduct; so that they can lose sight of the disgrace and degradation, which can only have the effect to discourage them in their adherence to a more virtuous course of life.

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VIRTUES OF CEDAR.

The leaves of Cedar afford effectual protection against the weavil and other depredating insects. Their aroma will also protect the body against the attacks of the musquito and bed-bug. This is the testimony not of king *Theory*, but of a practical man's *Experience*. It may not be uninteresting to the readers of the Luminary to learn the process by which I was led to make these discoveries. I will report it.

A year or two since I saw a notice in the public papers that bed-bugs never infested bedsteads made of cedar. I was at that time annoyed by a hardy race of these animals, who resisted the influence of mercury, turpentine, pepper, tobacco and poisonous gases used in fumigation. I resolved to try the virtues of cedar. The leaves were rubbed on the exposed parts of my body, and some of them placed under my pillow. The rubbing with the cedar leaves caused a pricking sensation for a short season, but kept aloof effectually my mortal enemy, that was wont to steal upon me and attack me under cover of the night. My success in this experiment led me to make others. I spread a pallet at night on the floor in a room much infested with the bugs, and strewed tobacco all along around it. In the morning I found the bugs had passed my tobacco wall. The next night I spread my pallet as before, and surrounded it with twigs of cedar. In the morning the pallet was examined and not a bug found. The experiment was repeated several times with the same results.

I next experimented with seeds. I put up several bags of garden peas, beans, &c. Some with tobacco, some with cedar leaves, and some with neither. Those packed away with cedar, I found well preserved. Those with tobacco were partly eaten by the weavil—those put away without either, were wholly destroyed.

Let your readers dry their seeds well, and pack them away with cedar, and they will save more in the seed line than they expend on your paper.—[Atlanta Luminary.

Extract from Mackay's

HOPE OF THE WORLD;

A new Poem.

"Egypt of old pursued the arts of peace,
And wit and learning bless'd the shores of Greece;
Imperial Rome, amid her ruins hoar,
Left proofs of greatness never reached before:
But what their triumphs? Whose sad hands were they
That piled the pyramids, to last for aye?
Who raised the walls, who built each mighty gate
With which high Thebes girt herself in state!
Who rear'd old Babylon's most gorgeous fanes?
Who shaped of Luxor the august remains?
What were the millions when Athena's name
For art and learning was the first to fame?
What were the multitudes when Rome was great?
What rights had they, or value in the state?—
All slaves and helots? Slaves were they whose hands
Uprear'd the pyramids on Egypt's sands;
Slaves built the city with the brazen wall
And hundred gates more marvellous than all;
Slaves to be lash'd, and tortured, and resold,
Or maim'd and murder'd for a fine of gold:
Helots degraded, scarce esteem'd as man,
Having no rights, forever under ban,
Where half the world when ancient Homer sang,
And wit and wisdom flow'd from Plato's tongue.
Having no hope, no thought of better doom;
Slaves were the swarming multitudes of Rome,
Fetter'd in body, and enslaved in mind,
Their mental eye-balls sear, and dark, and blind,
They crawl'd mere brutes, and if they dared complain,
Were lash'd and tortured until tame again!
And thus the many, since the world begun,
Have been for ever sacrificed for one:
The weak have died to satisfy the strong:
And earth has groan'd with oft-repeated wrong;
And still the many, knowing not their might.
Deed sunk in Error's most appalling night,
Have greeted loudest with the voice of praise,
The greatest scourger born in evil days;
Sang songs of triumph and their incense burn'd
To honor those whom most they should have spurn'd."

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FOURTH PROPOSITION.

[*Continued.*]

We shall continue our fourth proposition, by showing that the goodness of BOUNTIFUL NATURE, in Her true wisdom, has not left poor *human* nature in that hopeless condition, which would compel man to receive all the punishment attached to a violated law, without any possible chance of a mitigation of the punishment.

A *mediator* has been provided, *without having been promised;* and all those, who will receive this mediator in time, and in a proper manner, "Shall be blest in as much as their faith hath made them whole."

The idea which we particularly intend to convey by this figure of speech is, that man was not only created in harmony with laws which govern him, but that he also was made the wealthy possessor of a *Moral Agency*, which empowers him to use the talents with which he is endowed; Perception, Reflection, Constructiveness, &c., in discovering, inventing and using such mediators, or *agents*, as will have the greatest tendency to mitigate and finally remove the punishments attached to the violations of the laws of his nature.

It is even true that man can only *sin* by violating the laws of his nature. And all the aches, pains and miseries of which he complains, either physically or mentally, are the effect of *sin*—the punishment attached to the violations of law by which we are governed.

Hence, we perceive that *Nature* in her wisdom and justice, has not only endowed man with a moral agency, and *will*, to receive a mediator, or *agents* which shall act as a mediator between him and the punishment, or aches and pains; but that, she has also, provided those agents in bountiful profusion, which opens an extensive field for experimental philosophy.

Hence, too, we perceive, the necessity of the various departments of science, which pertain to the practice of medicine; all of which may be included under the head of Androphysics, which embraces the study of the structure and functions of the human body—the diseases and accidents to which it is liable; and the remedies for those, so far as they have been discovered. The name is derived from two Greek words, *aner*, a man, and *phusis*, nature; which may be regarded as synonymous with the term *Medicine*, or the medical sciences, which are derived from the Latin *Medico*, I cure. In order to be more clear on this point, we may divide Androphysics into four branches, which embraces Andronomy, Pharmacology, Thereology, and Chirurgery.

And first Andronomy, which comprehends the study of the human frame, in a healthy state; or the structure and functions of its various organs, and the means by which they have been made known. This nomenclature is also derived from two Greek words, *aner*, a man, and *nomos*, a law; hence, signifying the laws of the human body. The study of *Anatomy* is one of the principle features of this department of medical science, a knowledge of which is indispensable to the physician.

Anatomy, derived from the Greek *Anatemni*, I dissect, or cut in pieces; and relates especially to the art of dissecting, or artificially *separating* the different parts of animal bodies, to discover their *situation*, structure and economy.

Physiology teaches the science of the *functions* of the different organs, or the purposes which they subserve in the economy of life.

Comparative Anatomy and Physiology, are generally embraced in Zoonomy, which signifies the study of the various animal races.

General Anatomy, is that division of Andronomy, which treats of the different kinds of structure, found in the human body, as regards the mode of organization. These *structures*, or systems, are according to Bichat, the *osseous*, which constitute the bones; the *cartilaginous*, composing the cartilage, or gristle of the joints; the *fibrous*, forming the ligaments of the joints, and the coverings of the kidneys and other organs; the *muscular*, composing the muscles; the *vascular*, composing the heart, arteries and veins; the *nervous*, composing the nerves; the *mucus*, forming the internal lining of the system; the *serous*, enveloping the internal organs; the *glandular*, constituting small secreting organs; the *adipose*, or fatty, forming the inner covering; and the *cellular*, forming the outer covering of the kidneys, and other organs; and the *dermoid*, or skin, constituting the whole external covering of the system.

The study of the particular parts, and organs of the human body, is termed *Special Anatomy*, and may be divided into Osteology, Myology, Neurology, Angiology and Splanchnology.

1. *Osteology*, is that division of Anatomy, which treats of the *bones*, their structure, shape, number, and position in the body.

2. *Myology* treats of that division of Anatomy, which embraces the *muscles*.

3. *Neurology* constitutes the third grand division of Anatomy; and treats of the *nerves*, and the nervous system in general, including all the organs of sensation.

4. *Angiology* is that division of Anatomy, which treats of all the *vessels* of the human body: blood vessels, lacteals and absorbents.

5. *Splanchnology* treats of that division of Anatomy, which considers the *viscera*, or entrails, occupying the interior parts of the body.

This concludes that part of Androphysics, which considers the physical system. These explanations in medical science, however short they may be, must not only prove interesting to the general reader, but highly instructive, for the classification, if nothing else.

Correct classification is the high road to correct thinking.

[*Continued.*]

CRITICISM—W. M. McPHEETERS, M. D.

Through the kindness of Dr. H——, we are placed in possession of the St. Louis Medical and Surgical Journal; and our attention called to an article, in which the St. Louis Magnet is reviewed by one of its *distinguished* editors, W. M. McPheeters, M. D. It has been our object expressly to attend to our own business; and by this means we have, fortunately, as much as we can well attend to. We have never condescended to catch at straws for the purpose of paralizing the efforts of our contemporaries in the great work of promulgating general or special intelligence. We do not feel as if our existence, and popularity as a man, an editor or a moral and intellectual, or philosophical reformer, depends upon the traducing, misrepresenting, or extinguishing of every other man who may feel disposed to wield his pen, or raise his voice in behalf of those principles and facts, which he believes to be true; and consequently sacred to himself, and interesting to the public, if not instructive and beneficial.

Our sole object has been to build up, what we believe to be true, leaving error to fall by its own ponderons weight. We have entire confidence in the public. That they will support the truth, and reject error, as fast as they are satisfied, which is true and which false, the rapid progress of the age, in improvement sufficiently demonstrates.

It is not consistent with our dignity, nor with the course which we have marked out for our movements in the medical, scientific, or literary world, to condescend to notice so *weak and insignificant* an attempt to detract from the universal and highly acknowledged merits of the St. Louis Magnet, as an advocate of moral, and medical reform; and a cheap and wholesome medium of all the correct popular principles connected with either. But for the satisfaction of many of our friends, we yield a compromise, and stoop to notice the review, and expose not only the weakness, but maliciousness of the reviewer.

We quote the editor's introduction to the review:

"ST. LOUIS MAGNET."

"Through the kindness of a friend, we are in possession of the December number of this *pricious periodical.* For the benefit of our readers, we will give a few literal extracts, that they may see what rapid strides the mesmeric art is making in grammar, spelling, and rhetoric as well as medical philosophy! In the quotations given, we have taken the liberty of underscoring a few words and sentences, which we think deserve to be in *italics.*"

It would be well for our friend McPheeters to renew his acquaintance with the grammar rules, especially in Authography and Rhetoric, before *he* renders *himself* ridiculous by attempting to correct others. In the very first sentence of *his* review, *he* makes a most egregious blunder in Authography—observe *pricious!!!* We glanced over the *few little* editorial remarks of this self-devoted editor, and satisfied ourself that we might accumulate half a score of words, which would fully demonstrate *his* wonderful authographical powers.

The next sentence to which we call the attention of our readers is, "What rapid strides the mesmeric art is making in grammar, spelling, and rhetoric." * * * * *

Nothing will demonstrate a man's ignorance more clearly, than to attempt to write against that which *he* does not understand. We really believed that the variest boy in christendom knew that Mesmerism did not teach the art of Grammar, Spelling, nor Rhetoric; but that, of putting "*Folks to Sleep.*" If the reviewer will call at our office, we will correct the error into which *he* has fallen, by a demonstration of the peculiar powers, to which Mesmerism makes pretensions.

The Reviewer then quotes two paragraphs from the article headed Medical Cases, and upon which *he* makes the following comment: "Under this treatment, the patient, as a matter of course, improved rapidly, and speedily recovered."

The Reviewer then quotes the second case, under the same caption, in which *he* exposes two or three typographical errors, in authography—the invertion of a letter, and *soar* for sore, &c.; and then makes the following judicious comment: "Next is given the Clairvoyant treatment, which it is unnecessary for us to detail. This patient also recovered, and in a marvellously short time. The whole case closes with the following significant remarks." These remarks, the Reviewer quotes, and upon which *he* makes the following lengthy comment:

"And so say we."

The *magnitude* and force of this comment, we have no doubt, accords strictly with the caliber of the Reviewer. Effects are proportionate to their causes. (?)

We wish our readers to distinctly understand, that we are not *serious* in criticising our friend McPheeters' review; though it is even true, that *his* Authography and style are neither grammatically, nor rhetorically, that of mediocrity. We measure a man's caliber, morally and intellectually, by the number and correctness of the principles which he develops, and not by the nice, critical, far-fetched, artificial rules, which he observes; and which, in many instances, have no foundation in nature.

The Reviewer next garbles, two or three sentences from the article De Obfuscationibus, to show that it is "Sublime and non-intelligible."

We assure our Reviewer, that we can take the following sentence from *his* own *beautiful* composition, and it will not only appear unintelligible, but at the same time expose its false syntax: "It contains a large amount of valuable and useful information, and every *physicians* would do well to keep it on his table for purposes of constant reference."

We are inclined to think, that the difficulty with our Reviewer in respect to this article is its caption. Least, *he* may have not, had the Dictionary in one hand while scribbling with the other, we will give *him* its definition, which is *glimmering light*, and particularly refers to the obscure developments of Mesmerism in the dark ages, as connected with the most probable and reasonable explanation of *Sorcery*, *Witchcraft*, *Necromancy*, *&c.*

The Reviewer next quotes the notice which we gave the Medical Reformer, and then passes on to the article headed, "Magnetism among the Hebrews;" and upon which *he* makes the following introductory comment:

"The following should be regarded with very different feelings, than the passages we have before quoted—so far from being amusing, it is at once immoral and blasphemous."

For the purpose of exposing thoroughly the ignorance of the Reviewer, and the absurd and ridiculousness of *his* philosophy, we will quote this article in full, and the *arguments* which *he* makes to support the old and completely exploded doctrine of an *effect* being produced without a *cause*—*ends* accomplished without *means*—*something* growing out of *nothing*!!!

"*Magnetism among the Hebrews.*—The prophets of Israel designated by the name of *seers*, were as well consulted for the ordinary events of life as for sacred things. We read, for example, in the ninth chapter of of the Books of Kings, that Saul went to consult Samuel, to learn from him what had become of his father's asses, which had been astray for several days.

Ahab, king of Israel, wishing to know if he should make war to take Romoth in Gilead, assembled his prophets to the number of four hundred. God speaking *during dreams* in the *visions* of the night to warn man of the evil which he doth; and to instruct him in that which he should know—Job, xxxiii.

"The son of the widow of Sarepta became sick, and his disease became so severe, that he no longer retained a breath of life. Elijah took the child in his arms, and carried him into the apartment where he resided, and laid him on his bed. He then extended himself thrice over the child, measuring himself by his little body, and cried out—'Lord my God, grant, I pray thee, that the soul of this child may re-enter his body;' and the child was restored to life.—Kings, Book iii, chapter xvi.

"In nearly the same manner Elisha cured the child of the Shunammite."

Now comes the profound *argument* of our *philosophical* Reviewer, against the science of Mesmerism. Pardon us for saying argument, we mean an attempt to arouse the religious prejudices, of the *low*, *phanatical* and *bigoted* classes of the community!! Hear him:

The doctrine here inculcated is that the phrophets of Israel, and of course Christ and his Apostles were nothing more than *mere Magnetizers*. And yet this is put forth in a christian country, and believed, we doubt not, by men professing to be Christians! Verily, quackery must be rife in a community where such bold and disjointed nonsense, such miserable ribaldry as this can receive countenance and support. McP.

This closes our friend McPheeter's review of the St. Louis Magnet; and the most incontestible proof of the entire weakness and inability of the man to review anything, is *his* indiscretion in placing *his* signature to the loose closing remarks of the review! A superficial glance over the review, will satisfy all candid readers of the *object* of the Reviewer; and it is not really necessary for us to say anything more. But it may be interesting to our readers to simply inquire what kind of doctrine *this* ignorant, unphilosophical, priest-ridden Reviewer would wish to have inculcated? A doctrine which teaches that an *immutable* God, occasionally becomes *mutable*, abrogates the laws of nature, and accomplishes His purposes disregardless of his *immutable* laws, and independent of *means!!!* Ignorant block-head, priest ridden novice, do you not perceive that *you* are one of the innumerable means by which God accomplishes his purposes? Do *you* not observe, that by developing *your* erroneous views—principles—malicious disposition, that *you* excite truth and probity into action; placing these opposite principles in beautiful contradistinction, which excellerates moral reform and scientific research—progressive improvement, tending to raise the scale of humanity *ad infinitum*?

God does not work without *means*—He does not produce *effects* without *causes!*

How did Elijah restore the son of the widow of Sarepta? Did he use no *means*? Was it an *effect* and was there no *cause* adequate to its production? Christ used clay, spittle, water, &c., in performing His cures. Was there no virtue in these *means*? Or did the son of God condescend to practice a *hoax* upon His Children? This *pious* Reviewer talks about *blasphemy!!* We are much disposed to believe that if our readers would not regard the doctrine which the Reviewer would inculcate as blasphemous, they would at least recognize it as emanating from a mind very incompetent to reason upon the sublime truths manifested through the works of the grand FIRST CAUSE of all things.

Will our Reviewer inform *himself* in respect to the sublime truths taught in Mathematical science? Will *he* read the Bible with *his* eyes open, and be instructed in its beautiful moral tendency when compared with the great truths developed through the natural sciences, which are built up and based upon observation and experience; and susceptible of demonstration by every one who has sufficient perception and reflection, uncombined with a preponderance of *selfishness*, superstition, and bigotry? or will *he* continue to drop on one knee, dip *his* finger into a little *Holy* water, cross *himself*, count *his* beads and pray to the Blessed Virgin?

It is a very easy matter for a man to turn Parrot and say "*pretty Paul*;" but for him to turn philosopher, and launch out in the Ocean of Science, and investigate principles for himself—demonstrate truth, and expose error, is a task only accomplished by the few.

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Communicated for the Missouri Medical and Surgical Journal.

EXTIRPATION OF THE CHIN.

BY GEO. T. ALLEN, M. D., MARINE, MADISON COUNTY, ILLS.

"William Wright, *ætat* 7 years, had been salivated, while under treatment, for relief of a violent attack of remittent fever. Mortification attacked the Inferior Maxillary bone, and threatened its entire destruction. With a scalpel and pair of strong forceps I effected a complete division of the bone, on each side of the chin, and separated the soft parts from the diseased portion, without making an external wound. Knowing that the immediate removal of the separated portion of bone would cause the anterior extremities of the body of the jaw to be drawn together by muscular action; the face to be horribly disfigured; the child prevented from masticating food, and, probably, from articulating, I determined to push it as far into the mouth as possible, and have its ends merely catch the anterior extremities of the sound portions of bone sufficiently to hold them in their natural position a few days; trusting that new osseous or cartilaginous matter would be deposited, and a succedaneum formed. I watched the little patient attentively—no unpleasant consequences resulted from the new position in which I had placed the detached portion of bone, and, in about ten days, a firm substance had partially replaced the osseous portion of the chin, extending from the sound bone on one side to that on the other. I then removed the bone before separated. The remaining bone and soft parts continued *in situ*, and retained their natural appearance. A few weeks after the operation was performed, a substance nearly as firm as the original bone, and of its size and shape, occupied its place. Sixteen months have passed since I operated, and the boy masticates his food as well as any person can, enjoys good health, and may be seen, at this place, any day."

We quote the above article from the Missouri Medical and Surgical Journal, to show the wretched effects of a practice which renders surgeons of the ninteenth century so admirably popular. "Practice makes perfect;" and there is no system of operations, (war not excepted,) better calculated to create surgical practice, than the constant use of mercury in the treatment of disease.

An Aelopathic physician, is called on to treat a patient for *fever*, "remittent," if you please; he prescribes *calomel*, which very commonly salivates the patient, and converts the *fever* into a mercurial disease. The patient unfortunately, however, is not cured; but comparatively a harmless fever exchanged, for a dangerous, and almost uncontrolable mercurial disease, which loosens and ruins the teeth, destroys the gums, and not unfrequently produces mortification, which disfigures the face; and should the unfortunate sufferer recover from its deathly grasp, it is only for a more continued suffering: for we are perfectly satisfied, that this disease is never entirely eradicated from the system. It may be checked; but its effects to a greater or less extent, still exist in the system. Mercurial rheumatism, periodical fevers, fetid breath, general physical debility, and nervous eritability, which converts the human system into a highly sensitive barometer, detecting the slightest changes in the climate; and hence, admirably calculated to make meteorological observations! There is scarcely a person living within the influence of the *mineral* practice, who does not feel keenly every change of climate. This is an *effect*—will our readers *stoop* to inquire into the *cause?* or will they still continue to travel in the broad and downward road, which leads to pain, misery, and premature death?

We do not mean to throw any disparagement on the science of surgery—far from it; we recognize it as one of the most useful and benevolent departments connected with the healing art. A science, which requires the finest mechanical talent, combined with the strongest nerve; to constitute a successful operator. The spirit of our comments is aimed at the *unnatural* means—the abuse in the practice of medicine, which *creates* surgical cases!!

SWEDENBORG'S ANIMAL KINGDOM.

(Continued.)

The last subject on which it will be necessary to say a few words in this department of our remarks, is the distinction between the life before birth, and the life after birth. In the fœtus, nature, that is to say, the soul, as an end and formative power, alone rules, and all things proceed in natural order, from the highest or innermost sphere to the lowest or outermost, by the synthetic way, or a priori ad posteriora. But after birth, the will rules over nature, and drives her from her throne, and all operations proceed in inverse order, by the analytic way, or a posteriori ad priora. These opposite states require a medium to reconcile between them, which medium is supplied by the opening of the lungs; the animations of the brains being synchronous with the respiration after birth, but with the pulsations of the heart during uterine life. In the fœtus the higher spheres act, and the lower react; whereas after birth the lower act and the higher only react. In the former case all operations are universal and most individual, conspiring by intrinsic harmony, and in perfect freedom, and proceed outwards from the brains; in the latter hey are in the first place general, and proceed inwards to the sphere of particulars through the coverings, membranes, or bonds, of the body and its organs. But the reader will not acquire a satisfactory understanding of this wonderful doctrine by any thing short of an attentive study of Swedenborg himself.

There are certain organs in the body which have always been looked upon as the opprobria of physiologists, who indeed appear to fail wherever nature does not speak by an ultimate fact; that is to say, wherever there is a clear field for the understanding as apart from and above the senses. The absence of an excretory duct is sufficient to consign an organ in perpetuity to the limbo of doubt. Surmise indeed respecting its functions is still allowed, but proof is considered impossible. We might as well pretend to know the nature of the world of spirits as to know the functions of the spleen. We should be as rank visionaries in one case as in the other, since we should be placing an implicit dependence upon reason, in a matter where the bodily senses give no direct information. Swedenborg did pretend to know both, and ill he fared in consequence with the scientific world, and with the first reviewer of his "Animal Kingdom" in the "Acta Eruditorum Lipsiensia." They said he was a "happy fellow," and laughed outright. Without stopping to do more than direct the reader's particular attention to his doctrine of the spleen, the suprarenal capsules, and the thymus gland, as being satisfactory and irrefragable, it may be wondered why the physiologists should single out those organs as especial subjects whereon to make confession of ignorance. There is modesty in their confession, but it ought in justice to have embraced more. These organs are closely connected to others, and ignorance respecting them involves ignorance respecting the others also. Connexion of structures in the body is also connexion of functions, forces, modes, and accidents. If the function of the spleen be unknown, so precisely to the same extent are the functions of the pancreas, the stomach, the omentum, and the liver; if the functions of the succenturate kidneys be unknown, so are the functions of the diaphragm, the kidneys, the peritonæum, and indeed of the whole body; for the body is a continuous tissue, woven without a break in nature's loom. To be ignorant of a part, is to be ignorant of something which pervades the whole. The disease that affects the spleen, affects the whole, for the spleen is in all things, and all things are in the spleen. To recur to the liver; what is the amount of knowledge respecting its functions? Precisely this, that the hepatic duct proceeds from it, and carries bile into the duodenum. The bile and the duct are the sum and substance of the modern physiology of the liver; it is prorsus in occulto, why either bile or duct should exist. The truth then is, that there is as much known about the liver as about the spleen, and no more; in the one case it is known that there is an excretory duct, in the other there is none. Alas! the scientific mind is steeped in the senses, and is the drudge of their limited sphere.

Swedenborg's analysis is professedly supported upon the foundation of the old anatomists, who flourished in the Augustan age of the science. At his time nearly all the great and certain facts of anatomy were already known; such for example as the circulation of the blood, and the existence of the lymphatics and the lacteals. Anatomy, too, had long been cultivated distinctly in the human subject, and was to a great extent purified of the errors that crept into it at first from the habit of dissecting the lower animals. Many of the old anatomists were men of a philosophic spirit, who proposed to themselves the problem of the universe, and solved it in their own way or tried to solve it. They were the first observers of nature's speaking marvels in the organic sphere, and described them with feelings of delight, which showed that they were receptive of instruction from the great fountain of truth. They worked at once with the mind and the senses in the field of observation. There was a certain superior manner and artistic form in their treatises. They believed instinctively in the doctrine of use. They expected nature to be wonderful, and supposed therefore that the human body involved much which it required the distinct exercise of the mind to discover. Hence their belief in the existence of the animal spirits; a belief which they based on common sense, or what amounts to the same thing, upon the general experience of effects; at the same time that they recognized its object as beyond sensual experience and not to be confirmed directly by sight.* They used the microscope to assist and fortify the eye, and not to substitute it, or dissipate its objective sphere. Even the greatest among them, who addicted himself to the bare study of structure and the making of illustrative preparations, expressed a noble hope that others would complete his labors, by making as distinct a study of uses.†

But the picture is not without its darker side. Although they had strong instincts and vivid glimpses of truth, yet when they attempted to carry their perceptions out, they degenerated into mere hypotheses, and systems of hypotheses. They did not ascend high enough before they again descended, nor did they explore nature by an integral method; and hence they had no means of pursuing analogies without destroying the everlasting distinctions of things. They stopped in that midway where scepticism easily overtook them, and where, when that enemy of the human intellect had once penetrated, there was no possibility of mantaining themselves, but the fall to the sensual sphere was inevitable. The reason of this was, that they had not conceived the laws of order, and therefore could not claim the support which nature gives to all her truths. Nay, it was so impossible that they should proceed further without the tincture of a universal method, that their minds came to a stand still; the truths already elicited were rendered unsatisfactory, and mere progress demanded their fall. They fell therefore, and a race which knows them not is dwelling now in tent and hut among their mighty ruins.

At the very crisis of their fate, Swedenborg took the field for the end that has been already mentioned, and at once declared, that unless matters were carried higher, experimental knowledge itself would perish, and the arts and sciences be carried to the tomb, adding that he was much mistaken if the world's destinies were not tending thitherwards. The task that he undertook was, to build the heaps of experience into a palace in which the human mind might dwell and enjoy security from without and spiritual prosperity from within. He brought to that task requisites, both external and internal, of an extraordinary kind. He was a naturalized subject in all the kingdom of human thought, and yet was born at the same time to another order and a better country. To the various classes of schoolmen he appeared never to have attached himself, excepting for different purposes from theirs. He pursued mathematics for a distinctly extraneous end. As a student of physiology he belonged to no clique or school, and had no class prejudices to encounter. In theology he was almost as free mentally, as though not a single commentator had written, or system been formed, but as though his hands were the first in which the Word of God was placed in its virgin purity. Add to this that he by no means disregarded the works of others, but was learned in all useful learning. He had a sound practical education, and was employed daily in the actual business of life for a series of years. He was thoroughly acquainted with mechanics, chemistry, mathematics, astronomy, and the other sciences known in his time, and had elicited universal truths in the sphere of each. From the beginning he perceived that there was an order in nature. This enabled him to pursue his own studies with a view to order. He ascended from the theory of earthy substances to the theory of the atmospheres and from both to the theory of cosmogony, and came gradually to man as the crowning object of nature. He brought the order of macrocosm to illustrate the order of microcosm. His dominant end, which he never lost sight of for a moment, was spiritual and moral, which preserved his mind alive in a long course of physical studies, and empowered him to see life and substance in the otherwise dead machinery of the creation. He was a man of uncommon humbleness, and never once looked back, to gratify self complacency, upon past achievments, but traveled onwards and still onwards, " without fatigue and without repose," to a home in the fruition of the infinite and eternal. Such was the competitor who now entered the arena of what had, until this time, been exclusively medical science; truly a man of whom it is not too much to say, that he possessed the kindliest, broadest, highest, most theoretical and most practical genius that it has yet pleased God to bestow on the weary ages of civilization.

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* See Hesther. † Ruysch.

Swedenborg perceived that the permanence of nature depends upon the excellence of its order; that all creation exists and subsists as one thing from God; that divine love is its end: divine wisdom, its cause; and divine order, in the theatre of use, the simultaneous, or ultimate form of that wisdom and love. He also perceived that the permanence of any human system, whether a philosophy or a society, depends upon the coincidence between its order and the order of creation; and that when this coincidence exists, the perceptions of reason have a fixed place and habitation on the earth, from which it will be impossible to dislodge them by any thing short of a crumbling down of all the faculties, both rational and sensual; a result which, if the human heart be improving, the belief in a God forbids us to anticipate. But Swedenborg did not rest, as the philosophers do, in a mere algebraical perception of the truth, or in recognizing a want without supplying it, but like a good and faithful servant he actually expounded a system of principles at once with nature herself, and which will attest their order and their real Author by standing for ages of ages.

But his still small voice commanded no attention, and what he predicted took place: the sciences were carried to the tomb, where they are now buried, with the mind their subject, in the small dust of modern experience. This brings us to say a few words of the physiology of the day.

Facts are the grand quest of the present time, and these, particular facts: general facts are less recognized now than they were in the beginning of the last century; for short-sightedness has so *increased upon* us that we must look close in order to see distinctly, and hence *extended* surfaces do not fall under our vision. The physiologist defers reasoning until the accumulation of facts is sufficiently great, to suggest reasons out of its own bosom. This is a step beyond ordinary materialism. The individual materialist considers that matter must be organized into the form of a brain before it can think and will; but that compound materialist, the scientific world, expects dead matter to open its mouth and utter wisdom, without any such previous process. It thinks that at present there is not matter enough, or this result would ensue; little dreaming that there is a fault in itself, and that the larger the stores it possesses, the more impossible it will be to evolve their principles, or to marshal them under a theory. The common facts of the body having been pretty well explored, the physiologists go inwards, and gather further facts. Without waiting to ascertain the import of these, they submit them to the microscope and again decompose them; and so on, to the limits prescribed by nature to the optician, and by the optician to the scientific enquirer. But this is the field of leasts more easy to discern than that of compounds; or if we cannot read nature's secret in her countenance, can we expect to divine it from her very brains? The truth is, that the modern state of physiology is a universal dispersion of even sensual knowledge: its pretended respect for facts is not real; otherwise it would enquire into their general significance before resolving them into further elements. It perpetually illustrates the principle that facts cannot be duly respected unless they are seen as agents of uses, and results of ends and causes; and that if they are not so regarded, they become mere playthings, to which novelty itself can lend scarcely a momentary charm.

But as every end progresses through more means than one, so science is undergoing dispersion in another direction also. Not only are the generals of Anatomy forgotten for its particulars, but the human frame itself is in a great measure deserted for comparative anatomy. The so-called human physiologist pursues his diffuse circle from animal to animal, from insect to insect, and from plant to plant. Man is confounded with the lower and lowest things, as if all the spheres of creation were in one plane of order. The consummation of this tendency is already more than indicated above the horizon, when the lowest range of existence will be the standard of all, and then the chaos of organic nature will become the legitimate property of the chemists, to be by them resolved into gases and dead materials of the earth.

Another characteristic of the times is the almost total breach of continuity between the present and the past. The terminology of science is so much altered that it is impossible to read the older works with benefit, unless after a course of study something like that requisite for learning a dead language. In consequence, the mere anatomical value of the fathers of anatomy is not at all understood; their rich mines of observation are no longer worked, and their forgotten discoveries are now and then again discovered, with all the pains of a first attempt, by their ill-informed successors. Can anything be less human than this,—that the parents should transmit so little to the children, or rather that the children should be willing to receive so little from the parents? It exchanges the high destiny of man for the fate that attends the races of animals, in which each generation lives for itself alone, and again and again repeats the same limited series, without improvement or the possibility of evolution.

In the midst of this humiliating condition, what loud sounds do we not hear of "march of intellect" and "progress of the species,"—so many discharges from the impotent artillery of self-conceit. This indeed is the last and worst sign of a decadent science. The poor sick sufferer is delirious, and possesses for a moment superhuman strength in his own exhaustion.

The present cultivators of science boast themselves followers of Bacon in the inductive method, apparently grounding their claim on the fact, that they dwell in effects or in proximate causes to the exclusion of final causes. It is a remarkable circumstance, that each age since Bacon's time has considered itself especially as his follower, and that the present age, besides laying this unction to its soul, denies the genuineness of the Baconianism of all preceding ages. Meanwhile there can be no doubt, that if Bacon himself were to publish his works now for the first time, he would be ranked among the mesmerists, the phrenologists, and the other poor gentiles who are banished by common consent to the far islands of the scientific world, and would be exterminated from it altogether if they were not preserved in some mysterious way —perhaps by having the truth on their side. Bacon himself would belong to these gentiles; but would their antagonists then lay an exclusive claim to his philosophy? We apprehend not. The inductive method would be far from fashionable if its larger tendencies were seen, or if the scientific beliefs to which Bacon himself was led by it, could be currently reported. Would it not freeze a Royal Society to the very marrow, to be identified in any way with a man who believed, as the great Lord Bacon did, in witchcraft, and the medicinal virtues of precious stones?

Nothwithstanding the unpromising state of things in science, the natural theologians have adventured to deduce from it "the power, wisdom, and goodness of God as manifested in the creation." Truly the creation is an effluence and argument of divine wisdom. But in the present range of scientific insight, it is not seen to do more than approximate to the works of human skill. The mechanics of the watch are more wonderful to man than the mechanics of the ear or eye; the arch is the antetype of which the convex skull is but the type. Natural theology based on such science, can attribute nothing to God which does not belong in a superior degree to man. Its discoveries are not worth making, because they are not so infinitely transcended by the perceptions of common sense in all nations and ages. Now Swedenborg, in his scientific works, was a a natural theologian, but he began where human skill terminates, and by the application of guiding doctrines, followed the ever-expanding order of creation inwards to the point where mechanics and geometry are realized in more universal laws of wisdom and providence; and where at last the human mind itself recognizes the very source of life in its humiliation before the throne of God.

But it would be far from the present line of argument, to maintain that the moderns are performing no useful function in the "progress of the species." Such a proposition would be incompatible with what we know of the divine economy, in which human degeneracy itself is converted into a new point in the circle of uses. Nay, the moderns have their direct value; in the first place, they have enlarged the catena of observations in many departments. In the second they have corrected innumerable minute errors in their predecessors, who were more intent upon general than particular accuracy. And thirdly and chiefly, although in this respect no credit attaches to them, they have gone so low in their enquiries, that as it is even physically impossible to go lower, so by the law of the contact of extremes a revolution may now take place, and the ascending passage be commenced, as it were from the skin to the brain, or from the lowest sphere to the highest.

It would be interesting to trace the successive stages by which the physiology of the ancients declined into that of the moderns, to review the grounds on which great doctrines were given up, and to test the sufficiency of the reasons which were adduced for the change. The state delineated in the well-known lines—

> "I do not like thee, Doctor Fell,
> The reason why, I cannot tell;
> But this alone I know full well,
> I do not like thee, Dr. Fell,"

—this state was the moving cause of it. In short, it was a change in the human will, and not primarily in the understanding, which faculty appears to have been called upon subsequently, to confirm the new turn of the inclinations. Such at any rate we know to be the case with the doctrine of the animal spirits, which, as Glisson said, was in his time believed in "by nearly all physicians, and by all philosophers." It might have been supposed that the animal spirits were demonstrated out of existence by some beneficial genius who substituted something better in their place; at least that they fell honorably in a well fought field of argument. No such thing; they fell by the treachery of the human heart loving the sensual sphere more than the intellectual. Is such mere waywardness as this a part of the "progress of the species?" The ancients believed in the existence of the animal spirits without pretending that they could become objects of sight. "Tam subtile sit concipiendum [fluidum hoc subtilissimum]," says Heister, ". . . ut instar lucis velocissime se diffudat; quod profecto non oculis, sed ex effectibus et phænomenis, . . . ope judicii sive mentis oculis cognoscendum . . . . Ita aerem, animam, et multa non videmus, quæ tamen ex effectibus, quemadmodum spiritus animales, esse et existere intelligimus."* But the moderns reject whatever they do not see, and will credit the existence of nothing that absolutely outlies, and must in its conditions for ever outlie, the senses. It is needless to say that a state like this is based upon neither reasons nor sensations, but is purely negative or sceptical, and must be referred to sheer will without any admixture of wisdom.

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* Comp. Anat., n, 301, not. a.

REVIEWS.

Animal Chemistry, or Organic Chemistry in its application to Physiolgy and Pathology. By Justus Liebig, M. D., &c. London: Taylor and Watson, 1842, pp. 354.

The position which Liebig now holds as a European chemist may certainly be said be to the highest; even Sir Humphrey Davy, lauded and caressed as he was on all sides, did not enjoy a greater share of popularity with scientific men in general, and more particularly with the public in this country, than does the present Professor of Chemistry in a hitherto obscure German university. Nor will this be wondered at, if we look back upon the history of this extraordinary man. Whilst yet a youth of nineteen years of age, he published his paper on the Cyanic and Fulminic Acids, a work which bore upon it the stamp of genius, and proved incontestably that the author was then not only a good practical chemist, but also endowed with great acumen and uncommon powers of analysis. From that time until the present, he has never ceased to pursue his researches with most praiseworthy zeal, and year after year, nay, month after month, has borne testimony to the successful research and patient industry of our author. His papers, several of them written in conjunction with Wohler, merit the highest praise. We need only mention his celebrated one on the radical of the oil of bitter almonds, to remind our chemical readers of the impulse given to the investigation of the compound radicals by its publication, which indeed now bears its fruit by the hands of previously eminent chemists, and of others formerly unknown to science, but who now, reared in the school of Giessen, enjoy a reputation more than respectable, amongst the cultivators of the science of chemistry. The work now before us has been in the hands of our readers for a considerable time, and none, we may safely say, of modern authorship has produced a more vivid excitement in the scientific world. Its publication has effected immense good, by directing the attention of medical men, previously too little devoted to chemistry, to a careful study of that science. Medical journals, which ten years ago teemed with papers the most puerile, and which often indicated the grossest ignorance of chemistry, are now, following the general rule of running into extremes, filled with papers so *recherche*, that we have chemical explanations not only of the processes through which the aliment we swallow passes, but even of the action of the condiments and medicinal substances consumed along with it—the whole confirmed by a chemical analysis, of course not to be disputed, of *tenths of grains*, and of the ratio that the constituents of these bear to some important secretion weighing *ounces!*

These are circumstances that give us infinite pleasure; and we sincerely trust that the authors of these multifarious papers will hold us in no disesteem, if, in the course of the following remarks, which our duty, as journalists, compel us to make on the work of their master, we should appear to hold a doubtful opinion as to the merits, importance, and even scientific truth of what he and they have asserted. The consideration of the organic chemistry is, however, to be approached in no light spirit, but merits our attentive perusal and careful examination. Some of the doctrines enumerated by Liebig and his disciples are so startling and are apparently supported by facts so incontrovertible, that the whole work wears an air of plausibility, and engages the attention by a pleasing simplicity of arrangement, which must prove exceedingly captivating to all who are desirous of information on the chemistry of physiology. It is not our intention to attempt a minute critique on the whole work of the author, as, to do justice, in all its details, to a subject of this nature, would require a space which our limits cannot allow. We would, however, as much as possible, direct the attention of our readers to those parts of it most intimately connected with medicine; and as these, if not entirely new, are at least for the first time brought forward in a formal manner, they are well deserving of it.

The organic chemistry is divided into three parts,—the *first*, is devoted to the examination of the chemistry of nutrition;—the *second*, to the subject of the metamorphosis of the tissues;—and the *third*, to the phenomena of motion, &c. The first part commences with some very judicious remarks on the subject of vitality; but at the second page we find a statement which we cannot conceive to express well what the author means. It runs thus: "The animal organism requires, for its support and development, highly organized atoms." This is a very loose and inaccurate manner of saying that animals require for nutrition a more complex class of chemical compounds than those formed by the ordinary inorganic reactions. We may infer from this, and many similar oversights, that Liebig has not very clear notions of the terms of vitality and life; for a few pages farther on, we find expressions which plainly show that these are, in his opinion, identical. P. 11: "Certain phenomena of motion and activity," says he, "are perceived; and these we call life or vitality." This, we confess, appears to us to sound rather contradictory when placed in juxtaposition with the first sentence in the book, where vitality is distinctly stated to be the force which, acted on by external stimuli, produces the above described phenomena of motion. We find, in the succeeding pages, some interesting general remarks on the proportion of oxygen consumed at different temperatures, and on the necessity of an increased amount of carbonaceous aliments at low degrees of heat; with illustrations from the fact, *that* natives of northern districts can consume with impunity much larger quantities of flesh and stimulating drinks, than inhabitants of the tropics. Without denying, *in toto*, what Liebig has said on this subject, we would merely throw out a hint as to how far these so-called carbonaceous articles of diet of northern people do act in the manner he describes; and would ask, whether the desire for such food is not to be ascribed as much to its stimulating nature, as to its merely chemical constitution? Can there be any doubt that the natives of India, thrive well on a most carbonaceous diet whilst European residents die from various causes, and amongst them, from the abuse of highly azotized and stimulating articles of aliment? It requires that a person should have seen but once the enormous quantity of rice and *ghee* consumed by a Hindoo at a single meal, to satisfy himself, that the conclusions of our author, however plausible they may appear, are still to be received with caution. The experiments of Pepys, made many years ago, were conclusive to the point, that the same person under the influence of intoxicating liquors, exhaled less carbonic acid than when not subjected to it,—a result directly the reverse of what we should, according to our author's views, have expected to take place. In stating this, however, we quite agree with the general conclusion to which he has come, that there is no support to the opinion that there exists in the animal body any other unknown source of heat, besides the mutual chemical action between the element of the food and the oxygen of the air.

Glancing hurriedly at the many topics which engage the attention of our author in this the first part of his work, we have only space to call attention to some statements more marked than others; and we cannot pass over the one at p. 39, without expressing our doubt of its correctness. "Exercise and labor," says he, "cause a diminution in the quantity of the menstrual discharge; and when it is suppressed in consequence of disease, the vegetative life is manifested in a morbid deposition of fat." Now, as far as our experience goes, and we should say that of most practical medical men, it will be found that the suppression of this important secretion, symptomatic as it for the most part is of a derangement of the very functions which constitute the so-called vegetative life, is inimical to the deposition of fat. That increased bulk frequently results from it we do not deny; but that this depends on serous deposits in the cellular tissue, &c., is too obvious to require more than a mere comment on the circumstance. The chapter which has given rise to these remarks, is exceedingly interesting, and concludes with a classification of the articles of diet in a twofold division; i. e. plastic elements of nutrition, and the elements of respiration. For further information on these points, we must, however, refer our readers to the work itself.

The Second Chapter is headed, "On the Metamorphosis of the Tissues;" and here the extensive practical knowledge of our author is exhibited. But here facts are so mixed up with hypothesis, that we are frequently at a loss to know what statements are true, and what merely assumptions. At page 114, in speaking of the quantities of air which reach the stomach with the saliva, he states: "The fact, that nitrogen is given out by the skin and lungs, is explained by the property which animal membranes possess, of allowing all gases to permeate them, a property which can be shewn to exist by the most simple experiments." Then follows an account of the well-known fact of the permeability of dead animal membrane to gases: "and that it is a mechanical property common to all animal tissues, and is formed in the same degree in the living as in the dead tissue." Now, we are all perfectly aware, that such permeability, as a memanoal property, exists in the dead tissues;

but, as physiologists, we are compelled to hesitate before we can designate it as merely such in the living membrane. A fact militating strongly against this doctrine is, that different gases when introduced into a tissue are not absorbed with the same rapidity; for, in cases of emphysema, the oxygen disappears long before the nitrogen, and this fact of itself is sufficient, were others wanting, to show that this is something more than a merely mechanical cause in operation, being, indeed, but a result in conformity with the general law, that, within certain limits, the more stimulating the substance the more rapidly is it absorbed.

The paragraph immediately succeeding gives an explanation of the mode of the production of traumatic emphysema, which confirms our impression of the vagueness of Liebig's ideas on subjects apart from chemistry. It runs thus: "It is known that in cases of wounds of the lungs a peculiar condition is produced, in which, by the act of inspiration, not only oxygen, but atmospherical air, with its whole amount, four-fifths of nitrogen penetrates into the cells of the lungs. The air is carried by the circulation to every part of the body, so that every part is inflated or puffed up with the air, as with water in dropsy." To assume that the air is absorbed by the blood, and again deposited in the tissues, is most illogical, besides being quite opposed to all fact. The air, as all surgeons know, is forced into the cellular tissue surrounding the wounded costal pleura, and is in the ratio of the size of the wound of the pleura and of the force of the inspirations. Were the explanation given by Liebig correct, we should find emphysema as one of the results of the poisoning of the feather white wine, the noxious qualities of which he explains on the supposition that the carbonic acid, so abundantly generated in the stomach after drinking it, permeates the stomach, the diaphragm, and both the layers of the pleura, although it seems to make no stay between these, but proceeds at once to the air-cells, to suffocate the unfortunate drunkard; and the proof that this is the fact, is found in the circumstance, that the inhalation of ammonia is recognized as the best antidote against this kind of poisoning. This hasty conclusion is not, however, at all justifiable. Such a mode of procedure on the part of the carbonic acid is open to numerous objections: and although it is not easy to say what is the cause of death in the poisoning by this wine, it is much more rational to suppose that it may be produced by such a rapid accumulation of gas as to produce asphyxia, by suspension of the action of the diaphragm, knowing, as we do, the effects that result from spasm of this muscle in angina pectoris; or again, supposing the gas is eructated with great force and rapidity, it may cause, what carbonic acid when pure immediately does, spasm of the glottis, which must be rapidly fatal. The relief afforded by the ammonia may be explained on grounds other than chemical, and is much more likely to arise from its stimulant effects on the nervous system, than from its forming a salt in the air tubes and cells, as poisonous in that situation as the original carbonic acid would have proved.

The whole of this part of the chapter is in the same style, consisting, for the most part, of assumptions without proof, and contortions of phenomena to suit particular hypothesis of the author.

In the opinion of Liebig, theine, caffeine, theobromine, may be considered as the food of the liver, for, by the addition of oxygen and water to the two former, a constituent of the bile—taurine—may be formed; and, by the same addition to the elements of theobromine, taurine and urea, or taurine and uric acids may be produced. Two and eight-tenths of a grain of caffeine can give to an ounce of bile the nitrogen it contains in the form of taurine. And he infers from this, that the reason of these substances having become in their use so universal, as articles of diet, is, that those who chiefly live on vegetables take them instinctively, as it were, for the purpose of supplying azote to the bile, which must otherwise have come from the waste of the tissues. The quantity of theine and caffeine, contained in the infusions we drink, is, however, so extremely small, that although we may admit their action to be as he describes, yet, practically speaking, it is as *nil*, compared to the amount of biliary secretion. We must look for an explanation of the desire for these articles, other than any dietetic purpose they can serve, in the properties they possess of acting as stimulants on the nervous system. In no other way can we understand how green tea acts with such energy, compared with coffee, when the quantity of caffeine in the latter far exceeds that in the former, than by assuming that the action is dynamic, and not, as Liebig would infer, chemical.

The attempt to explain the mode of action of organic medical agents, on the hypothesis that these, being azotized bodies, produce a peculiar change in the chemical constitution of the nervous tissue, is exceedingly unsatisfactory; for, were it so, the objection which Liebig himself states is fatal, seeing that the poisonous properties of these bodies is not in the ratio of the quantity of nitrogen they contain; picrotoxine, which, if it contains any, at all events very little, of that element, being exceedingly poisonous, whilst caffeine, quinine, &c., are not so.

"The action," he says, "of these bodies is commonly said to be dynamic, that is, it accellerates, or retards, or alters, in some manner, the phenomena of motion in animal life. If we reflect that this action is exerted by substances which are material, tangible, and ponderable;—that they disappear in the organism;—that a double dose acts more powerfully than a single one;—that, after a time, a fresh dose must be given if we wish to produce the action a second time; all these considerations, viewed chemically, permit only one form of explanation,—the supposition, namely, that these compounds, by means of their elements, take a share in the formation of new, or the transformation of existing, brain and nervous matter."

The common view, that the action is dynamic, is in want of other proof, quite as probable as the chemical view taken of the matter by Liebig, and explains, equally satisfactorily, the necessity of increased dose to produce the previous effect; and, in the present state of chemical analysis, is likely to hold its ground against the doctrines here inculcated. The dynamic theory renders quite clear to our mind the effect of immaterial agencies in disturbing, exciting, or exhausting, the susceptibilities of the nervous tissue, which the chemical one of adding to, or abstracting from, the inorganic components of the tissue cannot do.

Dr. Forbes on Mesmerism.—The October number of the British and Medical Review published in London, quarterly, by Dr. Forbes, (author of Young Physic,) "Physician in Ordinary to Her Majesty's Household, Physician Extraordinary to His Royal Highness Prince Albert," contains a long review of Dr. Esdaile's "Mesmerism in India, and its practical Application in Surgery and Medicine." Dr. F. is a man far advanced in life, and is placed by common consent at the very head of the Medical Profession.—Up to the commencement of this year, he has been considered ultra-sceptical in reference to all new things. In the January number 1846, he made a clean breast of his views upon Medicine, and publicly repudiated the system (Allopathy) he had all his life pursued. In the number before us, he intimates to his professional brethren that the evidences in favor of Mesmerism can no longer be philosophically disregarded."

The article, "If Magnetism be true, who can be against it?" published in our preceding number, should have been credited to the "Gem of Science."

THE

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CLASSIFICATION OF MEDICAL SCIENCE.

We continue our Classification of the Science of Medicine, with

PHARMACOLOGY.—That branch of Androphysics which treats of Medicines, including the modes of preparing them, their properties and their uses. The name is derived from the Greek *Pharmachon*, which may signify either a medicine or a poison.

A *Medicine* may be defined as any substance applied to the animal system, either externally or internally, to cure disease or restore health. The art of compounding medicines is termed *Pharmacy;* the person who prepares or compounds them, an *Apothecary;* the book which describes them, a *Dispensatory;* and the medicines themselves, as well as the study of them, are termed *Materia Medica.*

Pharmacology is divisible into four other heads, as follows: Therapeutics, Materia Medica, Pharmacy and Toxicology.

We may embrace under the head of *Therapeutics*, the classification of medicines in reference to the manner in which they act, or the effects which they produce on the human system. The classification here presented, is drawn chiefly from Dr. Dunglison's valuable treatise on Therapeutics. As to the action of medicines on the human system, they may be classed as either vital, chemical or mechanical agents. The *vital agents* are those which directly affect the functions of life; acting either as excitants, which increase, or sedatives, which diminish organic action. The *chemical agents* are those which produce an immediate chemical change, and the *mechanical agents* are thus termed for the reason that they are supposed to act mechanically in producing their peculiar effects. These may be still subdivided into other orders, according to their various effects on the system; but we have not room for such an extended view.

To *Materia Medica* belongs the description of all simple medicines, and their medical properties.

Pharmacy, or *Pharmaceutics*, is that division of Pharmacology which relates to the selection, preservation and preparation of medicines, constituting the art of the Apothecary.

Toxicology is the study of poisons; their effects and their antidotes. This department of medical science should be understood by every person, as poisons are frequently taken through mistake; and unless the antidote is immediately administered death would ensue.

The next department of Medical Science to which we call our reader's attention, is THEREOLOGY; under the head of which we include the study of diseases and the practice of medicine. The name is derived from the Greek, *Thereo*, I cure, or take care of, and therefore properly applies to the means of preventing disease, as well as its removal. It may, then, comprehend the subjects of *Hygienics*, or the means of preserving health; *Nosology*, or the classification of diseases; *Pathology*, or their anatomical and physiological effects; *Etiology*, or their causes; *Symtomatology*, or their symptoms; and *Clinics*, or the practice of medicine at the bed side, as the name implies. *The term prognostics* is applied to those symptoms which indicate the causes or probable event of diseases, and *diagnostics* to those symptoms which distinguish a disease from other similar diseases.

We may divide *Thereology*, the third department of Androphysics, into Hygienics: febrile, eruptive, nervous and secretive diseases.

Hygienics we have sufficiently defined as that division of Thereology which relates to the preservation of health. The principles upon which it depends, are diet, exercise, air, temperature, clothing, occupation, rest, habits and passions. The consideration of *diet*, or the quantity and quality of food, is so important that it has sometimes been regarded as a distinct study, under the name of *Dietetics*.

Febrile Diseases form the most numerous and important division in Thereology. They are classed as *Pyrexiæ*, or inflammatory diseases, by Cullen; as *Hæmatica*, or sanguineous diseases, by Good, and are generally characterized by chilliness at the commencement, followed by preternatural heat, and acceleration of the pulse, denoting an irritated state of the system.

Under the head of *Eruptive Diseases*, we may comprehend those disorders which, though usually accompanied by fever, are characterized by cutaneous eruptions, and hence termed *Examthemata* in several systems of Nosology.

Under the head of *Nervous Diseases*, we may include those derangements, termed by Cullen *Neuroses*, in which the nervous system is more immediately affected, whether primarily or sympathetically. Nervous diseases may be divided into *Adynamie*, or diseases resulting from debility; *Erethismi*, or diseases resulting from irritation of the nerves, or increased sensibility; and *Spasmi*, or spasmodic affections.

Under the head of *Secretive Diseases*, we may include various derangements of the absorbent, secretive and assimilative functions, which affect different parts of the system. To this class belong most of the *Epischeses*, or suppressions, and the *Apocenoses*, or fluxes, so named by Dr. Cullen.

We may close this class of diseases with the *Chachexiæ*, of Dr. Cullen, which embraces all those diseases growing out of morbid humors, as Scrofula, Scorbutus, Elephantiasis, &c. This closes the department of Thereology.

Under the head of CHIRURGERY, we comprise all that branch of Androphysics which relates to manual operations for medical purposes, including Surgery, in all its branches. The name is derived from the Greek, *Cheir*, the hand, and *Erlon*, a work or operation; and the word Surgery may be traced to this root for its origin. It relates chiefly to the treatment of wounds, fractures, dislocations, sprains, tumors, ulcers, and such deformities as can be removed by mechanical means. This department of medical science necessarily presupposes a general knowledge of medicine, and a thorough knowledge of anatomy, to perform the operations correctly, and to administer the proper remedies in order to recover the patient from their effects. The practice of Surgery requires the utmost firmness, confidence, skill and dexterity, without which, the more critical operations, where life hangs upon the slightest turn of the knife, should not be attempted.

This branch of Androphysics may be treated of under the heads of Vulnar, Normal and Topical Surgery.

Vulnar Surgery comprises the treatment of external injuries, as wounds, fractures and dislocations, in all their various forms.

Normal Surgery properly treats of those operations which are necessary to promote recovery from ordinary diseases, or to remedy malformations, excepting diseases or malformations of the eye, the ear and the teeth, which properly belong to the following section. The word *Normal*, from the Latin, *Norma*, a rule, is used here in reference to the regular action of the organs, or the proper shape and state of the parts on which it is intended to act.

Topical Surgery embraces the treatment of the surgical diseases of the eye, the ear, and the teeth; which, from their difficulty, have been separated, in large cities, from general surgery, and assigned respectively to the Oculist, the Aurist, and the Dentist.

The diseases of the eye, requiring the attention of the *Oculist*, are numerous, and frequently very difficult to discover and manage.

To the *Aurist* belong the diseases of the ear, which are less numerous than those of the eye, but nevertheless frequently require critical surgical operations.

To the *Dentist* belongs that division of surgery which relates to operations on the teeth.

This concludes the various departments or branches of Medical Science, which are embraced under the head of *Androphysics*, a theoretical and practical knowledge of which is so essential to the medical practitioner. Our readers will at a glance perceive the necessity, as well as the beauty and harmony of these grand divisions in medical science. The various subdivisions seem but little less necessary, and equally beautiful and harmonious in their infinite progression. This may also serve to give our general readers some idea of the great amount of mental labor it must require to become profound in the infinitely varied principles of medical science.

Having carried our readers through our four propositions, which develop the true science of medicine, divesting it of its complex and mysterious character, rendering it beautifully simple and practical, safe and harmless in the hands of the people, its natural and rightful possessors, and to the *people* we humbly submit them. We might moralize on this matter, but we forbear. Should we be spared health and life, and the people give us a reasonable patronage, we will take this subject up in the third volume, and discuss the merits and demerits of each particular drug in use, and its various, or at least most common effects upon the human system; This would bring us into the true merits of abstract, practical Materia Medica.

* * *

DR. McNAIR; As your popular and scientific journal is the medium through which we receive intelligence of an important and philosophical character, I will take the liberty of communicating a few thoughts for the consideration of your numerous and intelligent readers; in doing of which my object is to prove that the great mass of mankind have lost sight of sound reason. Man, at the present day, is to a great extent the creature of habit and education. The principles imbibed in early life give tone and character to the man at mature age. Owing to the different habits of men, and the rotten and imperfect system of education, founded as it is upon unphilosophical principles, we have the diversity of character, and the absurd and contradictory views of men. God, the creator of all things in heaven and earth, gave to man the capacity to receive knowledge, and faculties capable of investigating the works of his hands, and deriving therefrom the sublime truths of science and religion, and learning the relation that he sustains to the world, to his fellow beings, and to his God. Man, to be happy, and obey his God, must live in obedience to the physical, intellectual and moral laws of his nature. But, in consequence of having become corrupt, and having sought out many inventions, not satisfied with himself and the position which the God of nature assigned him in the world, has thereby brought upon himself the penalty annexed to the violation of the law of God. As man became estranged from truth, mercy and obedience, ignorance and cupidity began to brood over the moral and intellectual world, until the great mass of mankind were enshrouded in her dark mantle. Egyptian darkness blinded the eyes of the understanding, and reason, that noble faculty of the human soul, was dethroned. In this state of intellectual blindness and moral degradation, the baser passions of the human heart gained the ascendency, and, lost to the genial influence of sound morals, man became a Devil incarnate. His chief pleasure consisted in gratifying the secular, ambitious and unjust desires of his depraved heart. Ignorance and cupidity were the motives of his mind, the baneful and desolating influence of which has destroyed kingdoms, dethroned monarchs, and abolished the most opulent and magnificent cities the world ever knew. Every nation under Heaven has been made to mourn and lament in consequence of the misery and death that has been brought into our world by this hydra-headed monster of the human heart. Long have the nations of the earth suffered under the galling yoke and tyrannical despotism of this—hell's most potent agent. But the day is dawning, and the light, the glorious light of human reason is penetrating the thick darkness; though feeble and glimmering its rays, the mist of error begins to disappear before the great luminary, which is advancing with an accelerated velocity, scattering as dust in the sunbeams the false philosophy of by-gone days, and revolutionizing the whole moral, intellectual and physical man, and unfolding the beautiful and sublime truths of science and religion. We hail thee as Heaven's light, given to man, to illuminate his pathway through this dark and dreary world, to the bright climes of bliss, where there is no dimming cloud to obscure our vision, and where hellish darkness can never intervene to obscure our sight. We will predict that the day is not far distant when human reason, enlightened by experience and observation, will be able to demolish all the fanciful and erroneous systems of philosophy, medicine and religion, and teach the true principles of society, of government, and of religion. Then, and not till then, will the base and hellish principles and acts of men meet their merited reward; the veil which long concealed from mortal eye the evil designs and secular motives of men will be taken away, and man can no longer, by hypocritical pretence of the love of virtue and justice, deceive his fellow beings, and thereby accomplish his wicked and hellish purposes. Long since has suffering humanity called aloud to be avenged and freed from the tyrannical despotism of ignorance and cupidity. The gigantic mind of man, after long imprisonment, by its inate power, and prompted by the love of truth, justice and patriotism, has arisen and thrown off the shackles of prejudice, and the bias of self-interest and early education, and with a holy enthusiasm proclaimed the true principles of government, society and religion, as being in harmony with each other, and in harmony with the whole material and immaterial universe. We will enquire, how long will ignorance and cupidity hold their *despotic rule* over the mind of man, and thereby deprive him of the pleasure of basking in the sunshine of truth and reason, man's counsellor in the intricate and arduous pursuit of knowledge. Will men, in an age like the present, replete with the most sublime and magnificent developments in the arts and sciences that the world has ever known, persist in unbelief and deny that the progress of mind is endless as duration. So great is the phenomena of the present age that the mind looks on with wonder and astonishment. Who will attempt to predict what a century to come will unfold to the scientific world, and will man not learn wisdom in reasoning upon the past, the present and the future, and thereby increase his fund of knowledge, that he may be able to act his part in life like a philosopher and a patriot, and not left to grope his way in the dark like a bigoted stoic, destitute of reason and common honesty. In every age of the world the great mass of mankind have been opposed to everything new; consequently, since the day that Noah built the ark, and had to encounter the mockery and scorn of the antedeluvian race, to the present hour, obliquy and proscription have assailed every new and untried experiment of man. This spirit forms one of the most unseemly traits in the human character. It indicates a mind neither resting for success on the resources of its own power, nor relying on the superintending care of a just, a wise and holy Providence. Because we ourselves are not first in the discovery, or because it might militate against our interest, we would wish it buried. Yes! no matter how useful or how benevolent, we would wish it forever buried in the Cave of the Cyclopes.

Upon no subject have we a more clear and philosophical demonstration of the spirit of ignorance and cupidity than in the history of medicine. It is there we find men who should be patterns of every excellent and noble quality of the human soul, debased and sunken in the very depths of iniquity; they have become proverbial for their low and hellish conduct, thereby bringing disgrace upon the profession.

What is man, lost to the better feelings of the human soul? I would ask, what reason there is in condemning a thing that we know nothing about? And again, I would ask, what has been the conduct of a great portion of the would-be great men of the medical faculty? I need only make a few quotations from some of the most able and popular medical men, in order to give a bird's-eye view of the fair temple of medical science.

Dr. Brown, of Edinburg, after fifteen years of study and practice, "deplores the healing art as altogether uncertain and incomprehensible;" Dr. Gregory says that fever is present in eight-ninths of all the diseases of man, yet "all the vagaries of medical theory respecting it have proved unsatisfactory;" Dr. T. J. Todd says "medicine has never known the fertilizing influence of the inductive logic;" and Dr. Harrison says "reason and common sense are never brought to bear upon it;" Dr. Waterhouse, long a Professor in Harvard College, calls it "honied quackery;" Dr. Bigelow, now a Professor there, calls medicine an "ineffectual speculation;" Dr. Chapman, of the University of Pennsylvania, calls it "absurd, contradiction and falsehood"—"a Dedalian Labyrinth;" Dr. L. M. Whitting calls it "a perfect chaos, destitute of hardly one solitary well established fact;" Dr. J. Abercrombie calls it "the art of conjecture"—"the science of guessing"—"a striking in the dark," &c.

We could extend quotations, but think that enough have been given for the present. Next we will give the medicines in constant use by the would-be great physicians of the present day a passing notice. In the present communication we will confine ourselves to that of mercury. That mercury, as a medicine, is one of the greatest curses that ever afflicted civilized society, there is not a doubt in our mind—the shadow of a doubt. The following is from Thos. Graham, of the University of Glasgow, and the Royal College of Surgeons, London—no quack slander this, no botanic nor mesmerizer's abuse of an invaluable medicine.

"There is a circumstance in the operation of mercury which ought to engage the serious and attentive consideration of the profession, as well as all who are in the habit of taking it themselves, or of giving it to their children. I mean the permanency of its deleterious effects. An improper or excessive use of the generality of medicines, is recovered from without (comparative) difficulty; but it is not so when the same error is committed with the mercurial oxides. They affect the human constitution in a peculiar manner, taking (so to speak) an iron grasp of all its systems, penetrating even to the bones, by which they not only change the healthy action of its vessels and general structure, but greatly impair and destroy its energies. I have seen the coustitutions of such persons, (who were supposed to have the Liver Complaint,) irrecoverably ruined by active mercurial courses, but in no instance did I ever witness a cure effected by this treatment. It is painful to recollect that in disorganized livers, mercury, carried to the extent of salivation, is commonly regarded as the sheet anchor, the fit and only remedy; for I will venture to affirm that the far greater number of such cases grow materially worse, rather than better by such use of it, and that this aggravation consists not merely in an increase of the patient's weakness and morbid irritability, but that the existing disease in the liver becomes more extensive and inveterate."

ABERNATHY.—"Persons who are salivated, have, as far as I have remarked, the functions of the liver and the digestive organs constantly disturbed by that process."

BLACKALL, on the Scirrhus, or Tuberculated State of the Liver.—"I have seldom seen mercury make any (good) impression; but I have seen the mercurial habit superadded by continual salivation, and then the disorder become more complicated and more speedily fatal."

HAMILTON.—"The ordinary mode of exhibiting mercury, for the cure of Chronic Hepatitis, not unfrequently hurries on the disease, or, by impairing the constitution, lays the foundation for paralytic affections, and it may be truly affirmed that it thus often shortens life."

Graham.—"There is not in the Materia Medica, another article which so immediately and permanently, and to so great a degree, debilitates the stomach and bowels, as calomel. Yet this is the medicine which is prescribed and sent for on every occasion. Its action on the nervous system is demonstrative of its being an article in its nature inimical to the human constitution, since what medicine besides, in frequent use, will excite feelings so horrible and indescribable, as calomel, and other preparations of mercury?"

N. **Chapman**, Professor of Materia Medica in the University of Pennsylvania.—"If you could see what I almost daily see in my private practice—persons from the south, in the very last stage of miserable existence, emaciated to a skeleton, with both plates of the skull almost completely perforated in many places, the nose half gone, with rotten jaws and ulcerated throat, with breaths more pestiferous than the poisonous Bohon Uphas, with limbs racked with the pains of the inquisition, minds as imbecile as the puling babe—a grievous burthen to themselves, and a disgusting spectacle to the world—you would exclaim, as I have often done, 'O! the lamentable ignorance which dictates the use (as medicine) of that noxious drug, calomel.' It is a disgraceful reproach upon the profession of medicine—it is quackery—horrid, unwarrantable, murderous quackery. What merit do physicians flatter themselves they possess by being able to salivate a patient? Cannot the verriest fool in christendom give calomel and salivate? But I will ask another question: Who is there that can stop the career of calomel when once it has taken the reins into its own possession? He who resigns the fate of his patient to calomel is a vile enemy to the sick, and if he has a tolerable practice, will, in a single season, lay the foundation of a good business for life, for he will ever afterwards have enough to do to stop the mercurial breaches in the constitutions of his dilapidated patients. He has thrown himself in close contact with death, and will have to fight him at arm's length, so long as one of his patients maintains a miserable existence."

Dr. **Rush** says: "Dissections daily convince us of our ignorance of the seats of disease, and cause us to blush at our prescriptions. What mischief have we done under the belief of false facts and false theories. We have assisted in multiplying diseases—we have done more, we have increased their mortality."

I hope you will excuse this lengthy article. The next will not be quite so lengthy. G. A. HAMMON, M. D.

Florisant, Mo.

We publish the following article from the ANNALIST, a Record of Practical Medicine, in the city of New York, and edited by William C. Roberts, M. D., to show the astonishing acknowledgements which are daily being made by the more enlightened, observing and conscientious of our Alopathic brethren, in respect to the ruinous and destructive effects of that *Sampson* of the drug shop, Calomel. From twenty to fifty infants die per week in this city, (St. Louis,) the cause of which has created a great deal of anxious enquiry. The light, however, of observation and experience, has not yet been able to penetrate the dense skulls of but very few of those whose duty it is to observe *the effects of their practice*, and trace out the cause which deals out *death* so relentlessly, especially among infants. Premature death is an artificial effect, produced by causes under the control of enlightened reason. The excuse, "the will of the Lord be done," will not appease the feelings of the *philosophic* parent, when his "*little ones*" fall thick and fast around him, mown down like grass before the scythe, and withered before the meridian sun has beamed upon their understanding. The observations of the people are, however, daily becoming more and more developed upon this vastly important matter, and the day is not far distant when those opake heads will be rendered beautifully transparent by the keen demands of nature's wants.

We hope time, with her powerful wand, may work a *glorious* change in their practice, which will convert the deadly weapons of medical warfare into powerful agents in preserving and prolonging life—for reason has most assuredly failed.

We should be pleased to enter into the merits of this matter ourselves, but we shall be contented for the present for our readers to listen to the Alopathic. At a more convenient season we shall take this subject up and resolve it into problems and solve them mathematically.

ON THE EFFECTS OF MERCURY ON THE YOUNG SUBJECT.

BY JOHN B. BECK, M. D.,
Professor of Materia Medica and Medical Jurisprudence, in the College of Physicians and Surgeons, of New York.

In some previous papers,* I endeavored to point out the peculiarities attending the operation of opium and emetics, on the infant subject, as distinguished from the effects of these agents on the adult. I now propose to make some remarks on another article of even still greater importance, and that is *Mercury*. That Mercury is an agent of immense power either for good or evil, upon the human constitution, cannot be questioned. While in many cases it is the means of saving life, in not a few it unquestionably destroys it. If this be so, it becomes a question of the deepest practical interest, to determine whether its action is modified in any way by the age of the patient, and particularly so, when it is recollected that it is given by too many physicians, even more freely, and may I not add indiscriminately, to the young subject than to the adult.

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* New York Journal of Medicine and the Collatteral Sciences. Vol. 2 p. 1, Vol. 7. p. 153.

The first and most striking peculiarity attending the action of mercury, is that in young subjects, it does not produce salivation so readily as it does in adults. Indeed under a certain age, it appears to be exceedingly difficult to excite salivation at all in them. On this point, besides our own experience, we have abundance of testimony. Dr. Clark says, "under various circumstances he has prescribed mercury, in very large quantities, and in a great number of cases; and he never produced salivation, except in three instances, in any child under three years of age."† Dr. Warren, of Boston, observes, "that he has never known an infant to be salivated, notwithstanding he has given in some cases, large quantities with this view."‡ Mr. Colles, of Dublin, says, "no man in the present day requires to be told that mercury never does produce ptyalism, or swelling and ulceration of the gums in infants."§ Drs. Evanson and Maunsell speak still more strongly. They say, "mercury does not seem capable of salivating an infant. We have never seen it do so, nor are we aware of any such case being on record." "We have never succeeded in salivating a child under three years of age."||

The same general fact seems to be applicable to the external use of mercury. Dr. Percival, of Manchester, remarks, that he "repeatedly observed that very large quantities of the Unguentum Cœruleum may be used in infancy and childhood, without affecting the gums, notwithstanding the predisposition to a flux of saliva, at a period of life incident to dentition."¶

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† Commentaries on some of the more important Diseases of Children. By John Clark, M. D. p. 182.

‡ View of the Mercurial Practice in Febrile Diseases. By John Warren, M. D., p. 146.

§ Practical Observations on the Venereal Disease and on the use of Mercury. By Abraham Colles, M. D., p. 171. Amer. edition.

|| Treatise on the Management and Diseases of Children, p. 88.

¶ Essay, Medical and Philosophical. By Thomas Percival, M. D. vol. 2. p. 318.

That salivation does not take place so readily in the infant as in the adult, would seem then to be well established. That it never can or does take place, as might be inferred from some of the preceding quotations, is by no means, however, true; and the statement, if implicitly relied on, is calculated to be the cause of much mischief. That very young subjects do sometimes become salivated, is unquestionable. One case, and only one, however, has occurred in my experience, in which a child of two years of age was salivated, and that by a very moderate quantity of calomel, viz: five grains, given in three portions, at intervals, within the space of about twelve hours. In about two days after, the gums became inflamed, the tongue swelled, severel ulcers appeared in the mouth, and the flow of saliva was free; after continuing about three days in the same state, it gradually yielded, and disappeard without any further inconvenience. In this case every thing seemed favorable to the development of mercurial action. The child had been laboring under hooping cough for several weeks, and was a good deal reduced. It vomited freely with every paroxysm of coughing, and this no doubt aided in bringing on salivation, in a constitution peculiarly sensitive and evidently scrofulous. Nor is this a solitary case. Dr. Clark, already quoted, admits that in three cases salivation was producod in children under three years of age. And similar cases have been observed by others. Dr. Blackall relates the case of a child, two years of age, who was salivated in consequence of taking two grains of calomel for several successive nights. The child was a poor scrofulous subject, and it sunk under the effects of the mercury.

This, then, is a remarkable peculiarity in the action of this agent upon the infant subject, and the observations of it have doubtless led to the belief, too prevalent among some physicians, that it may be given to them to almost any extent with perfect impunity; an error, which, if not in its immediate, yet certainly in its remote effects, has been the prolific source of more mischief, probably, than any of us are aware of.

Although mercury so seldom salivates infants, yet, notwithstanding this, it cannot be doubted that it affects the system profoundly, and even more so proportionally than it does the adult. That it should do so appears perfectly natural, when we reflect upon the mode of its operation on the human system. On this subject, I am aware that a great differance of opinion exists. By some, mercury is looked upon as a stimulant; while others view it as a sedative, a familiar acquaintance with its effects, however, will show, I think, that it may be the one or the other, according to circumstances—according to the dose in which it is given—the length of time it is continued, and more especially, the condition of the system at the time of using it. A single large dose of calomel will cause nausea and relaxation, and sometimes unpleasant prostration, while if it be given in smaller doses and repeated frequently, it will occasion irritation of the intestines, and general disturbance of the vascular and nervous systems. In the former case acting as a profound sedative, and in the latter as a stimulant, or rather irritant. That calomel given in large doses operates as a sedative, seems to be proved, not merely by nausea and prostration which it frequently produces, but by other considerations. In dysentery, for example, in the adult, a dose of twenty grains of calomel will sometimes allay pain and irritation, with as much certainty as a dose of opium. For the purpose of testing the effects of calomel, some interesting experiments were made by Mr. Annesley, which would seem still further to show, that in large doses the action of this agent upon the mucous membrane of the stomach and intestines is that of a sedative. He took three healthy dogs, and gave to one, ʒj. of calomel, to a second ʒij. to a third, ʒiij. After this they were tied up in a room.

“ The dog which took ʒj. did not appear to feel any kind of sickness, till six or seven hours afterwards when he vomited a little. He was lively the whole time, and ate his food well; had been purged two or three times; dejections of a black grey color.

The dog which took ʒij. was likewise lively and ate his food well, vomited two or three times, and was purged more than the other; he passed tape worms and the dejections were black.

The dog which took ʒiij. was heavy, and apparently uncomfortable the whole day, and did not vomit at all; he was purged and passed a very long tape worm; dejections also black.”

Twenty-four hours after they had taken the calomel, the dogs were all hung, and five minutes after they were dead, they were examined, and the vascularity of the stomach was found to be the inverse ratio of the calomel they had taken; i. e. in the dog which had taken ʒiij., the vascularity was the least, and so on. For the purpose of comparing this with the condition of the stomach of a dog which had taken no calomel at all, an examination of another dog was made; and here the stomach was found to be *more vascular* than in any of the others. From these experiments, Mr. Annesley drew the conclusion, that “ the natural and healthy state of the stomach and intestinal canal is that of high vascularity, and that the operation of calomel in large doses, is directly the reverse of inflammatory."[*]

The foregoing considerations would seem to show that calomel in full doses is a local sedative, and in its general effects, is debilitating to the system at large. Hence its great utility and value as a remedy in many inflammatory diseases.

When on the other hand, it is given in small and repeated doses, it acts not unfrequently as a local, as well as a general irritant, producing immoderate action of the bowels, and general irritation of the nervous and vascular systems. Now these, we know, are the effects observed continually in the adult, and it is but reasonable to suppose that all of them must, as a matter of course, be aggravated in the more delicate and sensitive system of the infant.

What shows incontestibly that the action of mercury is actually more energetic on the infant than the adult, is the fact, that when salivation does take place in the former, as it sometimes does, its effects are most disastrous. Sloughing of the gums and cheeks, general prostration and death, are by no means uncommon occurrences. On this subject, Dr Blackall justly remarks, "a general opinion prevails, that the constitutions of young subjects resist mercury. Its entrance into the system they certainly do resist, more than we could expect; but they are greatly overcome by salivations, and the possible occurrence of such accidents may well set us constantly on our guard."[†] Dr. Ryan, too, says, "Ptyalism of infants is often followed by sloughing of the gums and cheeks: and this I have known to occur after the use of it in Hydrocephalus."[‡]

Besides being more energetic in its action on the infant, mercury is also more uncertain. This must necessarily be the case, and for the same reasons that every other active agent is so. In the adult we know that mercury varies in its effects, according to the condition of the system, and the peculiarities of the patient's constitution. Thus some persons are salivated by the smallest quantity of this metal, while others resist the influence even of the largest quantities. In some, febrile action; in others, diarrhœa and exhaustion take place even from moderate doses. Hence it is, that every prudent physician, if unacquainted with the previous history of his patient, makes it a special subject of inquiry to ascertain whether he has ever taken mercury previously, and how it affects him. Now, in the young infant, of course, as we cannot so well have the benefit of this information, more uncertainty must necessarily attend its operation.

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[*] Transactions of the Medical and Physical Society of Calcutta. vol. 1 p 211.

[†] Observations on the Nature and Cure of Dropsies, by John Blackall, M.D. p.126.

[‡] Manual of Midwifery. By Michael Ryan, M. D., p. 477.

These, then, are the peculiarities attending the operation of mercury on young subjects, viz: that they are salivated with great difficulty, and that notwithstanding this, the effects of it are frequently more energetic and uncertain than they are in the adult. And it is upon these as the basis, that I propose to make a few remarks bearing upon the practical application of it in young subjects.

1. If salivation occurs so rarely in children under a certain age, then it is evident that it can never be made a criterion by which to judge of its influence on their systems. To attempt, therefore, to produce this effect, as we do in adults, is manifestly improper. In cases where it is desirable to get the system under the influence of the remedy, other modes must be resorted to for the purpose of judging to what extent the use of the article should be carried. Now this is by no means easy. Even in adults, where we have the benefit of salivation as a test, all practical physicians are aware how difficult it is frequently to decide when it is proper to stop the use of the remedy. How much more so must this difficulty be increased in the young infant, where we are left without this guide. The only modes of judging, of course, are the character of the evacuations from the bowels, and the general impression made upon the disease for which it is administered. Both these are evidently, however, uncertain. It is to be feared, therefore, that for the want of a more certain guide than we at present possess, the use of this remedy is, in many cases, unnecessarily protracted, to the great detriment of the little patient. From all this the conclusion is obvious, that in the use of this article in the young subject, much greater caution is necessary than in the adult.

2. The fact that mercury may prostrate and destroy a young child, even though it does not cause salivation, it is to be feared is not sufficiently appreciated, at least by some. We have known calomel given without weight or measure, to a young child, and the reason assigned to justify it was, that it could do no harm, because it would not salivate. Now it appears to me that no opinion can be more unfounded, and no practice more mischievous. Although a single dose of calomel, even though large, may be well borne by children of an ordinary strength of constitution, yet even this is not entirely safe in all cases; and when these doses are frequently repeated, particularly in delicate habits, the most serious consequences may result.

3. The use of mercury in young subjects as an alterative, should in all cases be conducted with great caution. There is no practice more common than that of continuing the use of this agent in small doses, for a considerable time, and certainly none which is more liable to abuse. Under the idea that the dose is so small, and from no salivation appearing, we are apt to infer that even if the medicine is not doing any good, it is certainly not doing any harm. Any improvement, too, which occurs during the use of the article, is sure to be attributed to the silent operation of it on the system. Now, although this is not unfrequently the case, yet it is not invariably so; and every observing physician must have been aware of cases in which, in this way, the article has been unnecessarily and injuriously continued. In bowel complaints, under the idea of altering the secretions, it has frequently, no doubt, helped to keep up the very intestinal irritation it was given to correct. In other cases it has developed the latent tendency to other diseases, such as Scrofula, Phthisis Pulmonalis, &c. In adults we know this to be very often the case. How much more likely is all this to happen to the young infant.

4. In the use of mercury in young children, great care should be exercised in ascertaining, as far as possible, their constitutional peculiarities. This, of course, is not in all cases easy to be done. A good deal, however, may be learned from an acquaintance with the tendencies of the parents. Wherever the parents show indications of scrofula, or where there is an hereditary predisposition to consumption, great caution ought to be exercised in the use of mercury in their offspring.

5. Mercury should be administered with great caution in cases where a child has been sick for a considerable length of time, and when the strength of the child has been very much reduced. In this state of constitutional depression, a single cathartic dose of calomel sometimes proves fatal. We think we have seen more than one case, in which a child has been irretrievably prostrated under these circumstances, under the false impression that calomel is an innocent purgative to a child.

6. The too common practice of giving calomel as an ordinary purge, on all occasions, is certainly unjustifiable. From the facility with which it may be given, it is unquestionably resorted to in a great number of cases where it is certainly unnecessary, and in a great number where it positively does harm. The misfortune is, that its use is not limited to an occasional dose, but it is too often given in every slight indisposition of the child. Now, in this way, there can be no question that the use of

4. Swallowing the food slowly, or in small quantities, and at short intervals, is very necessary.

5. A quantity not exceeding the real wants of the economy, is of prime importance to health.

6. Solid aliment, thoroughly masticated, is far more salutary than soups, broths, &c.

7. Fat meat, butter, oily substances of every kind, are difficult of digestion, offensive to the stomach, and tend to derange that organ, and induce disease.

8. Spices, pepper, stimulating and heating condiments of every kind, retard digestion and injure the stomach.

9. Coffee and tea debilitate the stomach and impair digestion.

10. Alcohol, whether in the form of distilled spirits, wine, beer, cider or any other intoxicating liquors, impairs digestion, debilitates the stomach, and if persevered in for a short time, always induces a morbid state of the organ.

11. Narcotics of every kind impair digestion, debilitate the stomach, and tend to disease.

12. Simple water is the only fluid called for by the system; artificial drinks are all more or less injurious; some more than others, but none can claim exemption from the general charge.

13. Gentle exercise after eating, promotes digestion more than indolent inactivity or rest. Violent exercise, with a full stomach, is injurious.

14. Sleep, soon after eating, retards digestion, and leads to debility and derangement of the stomach.

15. Anger, fear, grief, and other strong emotions, disturb digestion and impair the functional powers of the stomach, and deteriorate the secretions generally.

MESMERISM.

A Mr. Gayler is electrifying the people at Indianapolis with his lectures and exhibitions in animal magnetism. A correspondent of the State Journal says that four persons were put into the mesmeric state, and no difference was perceived between this and their natural condition. "Their feet were fastened to the floor at the command of Mr. Gayler, so firmly that with all their efforts they could not move, the sense of feel-

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